# Apple2000

THE NATIONAL APPLE USERS GROUP

APRIL 1990

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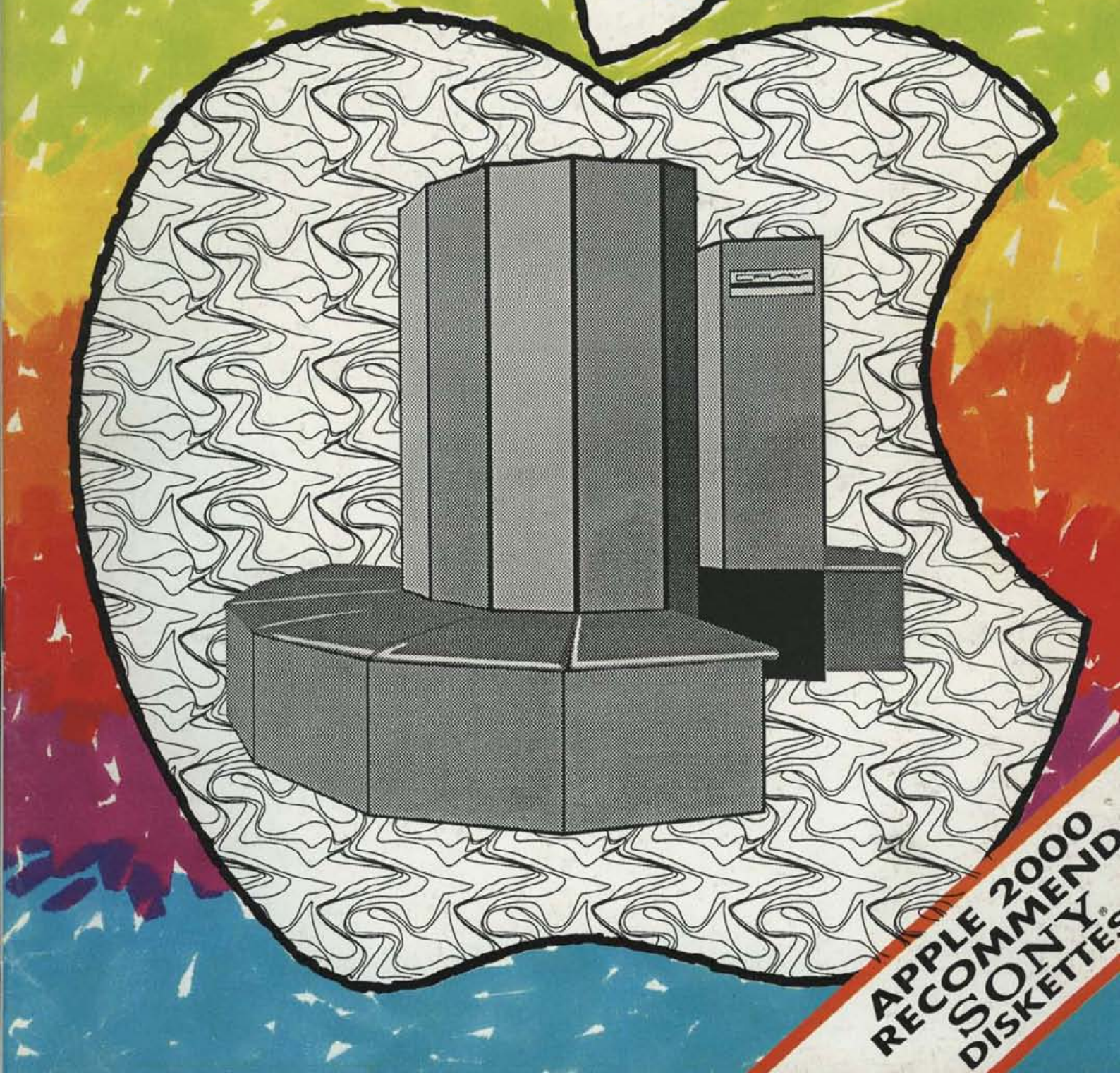

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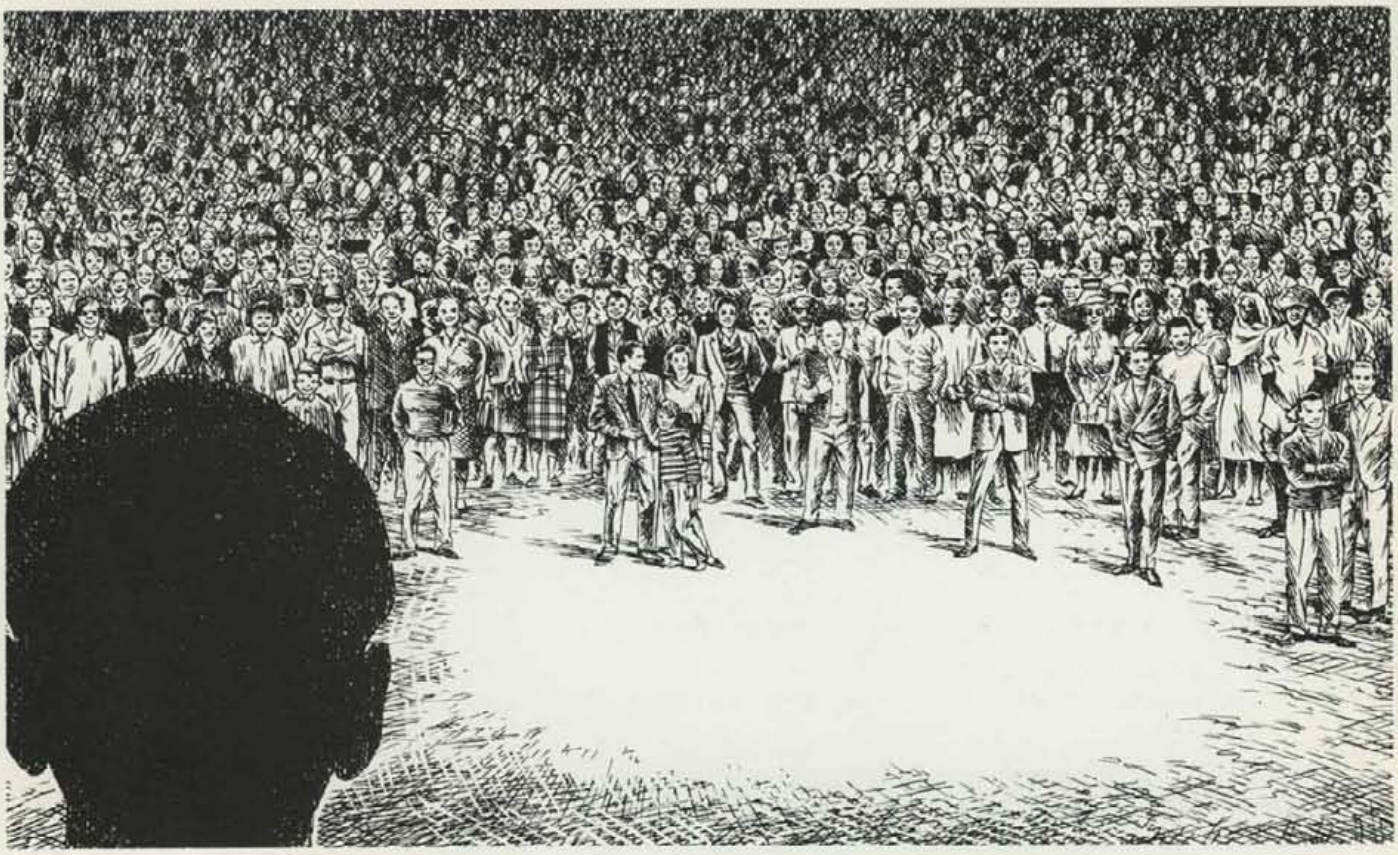

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# Apple2000

April 1990

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**Apple2000** supports users of all the Apple computers. The **ITT 2020, I, II, II+, //e, //c, //c+, IIgs, IIgs+, ///, Lisa, XL, Mac 128, 512 MacPlus, SE, SE/30, Mac II, IIcx, IIci, IIx, IIfx & Portable** Contributions and articles for the magazine are always welcome. We can handle any disk size or format. Please send to the PO Box, L21 8PY.

**NOTE:**
In general the front half of the magazine is for the Apple II, Apple IIgs and Apple /// The back half for the Macintosh and Lisa. Look out for the descriptive page icons.

**Key:**
Apple II, //e and //c
Apple ///
Apple IIgs
Macintosh, Lisa
Macintosh II

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### There are a number of ways to contact Apple2000.

Force users who have a query about the service can contact the administrator, John Lee, directly for help and advice. Call him on the number opposite or send a message to his box on the Force.

If you wish to order goods or services from Apple2000, call Irene on 051-928-4142 or (during office hours) call Alison on 0732-740415. Both have Ansafones, in case they're not around. Alternatively you can Fax. to 051-949-0307, write to the PO Box or (if you use comms) you can leave orders on TABBS addressed to the SYSOP.

If you are experiencing problems with Apple hardware or software Dave Ward and Tony Dart run the Hotlines and will try and help you.

We are very interested in the activities of local user groups, and if you have any information which you would like publicised John Lee would like to hear from you.

We reserve the right to publish without prejudice in the journals of Apple2000 any advice or comments given to members.

A little praise for a few of our authors wouldn't go amiss. Send all comments, and contributions, via the PO box, especially suggestions about what you would like to see in **your** magazine.

# Chairman's Corner

## 1980-1990

❑ It has now become almost obligatory for Apple to release new products at six monthly intervals. This March was no exception to this rule with the launch of the Macintosh IIfx. Many guesses had been made as to what new machines would be appearing this year, and it was no surprise to see that a fast Macintosh II appeared at the top of the range. It is disappointing though to see that the Mac Plus and the basic SE are still part of the range. We had hoped that an entry level machine would replace these two, a basic machine that would fully use System 7.0 when it appears. The rumours will continue to flourish of course, and perhaps we shall see this machine at the next launch six months from now.

The IIfx is quite an important milestone for Apple. With the minimum of fuss, they have attacked the high end graphics and CAD market with a machine capable of running at the speeds these kind of applications need. With new 4mb SIMMS in the offing, up to 32mb can be fitted on board the IIfx. Couple this with the fast SCSI-DMA access, a 160mb internal hard disk and a Processor Direct Slot, we should see a real inroad being made into CAD and image manipulation. The new Display Cards give photographic reproduction at 24 bit level, and with the optional video output will give computer animation and image processing a much needed boost.

One item that was not mentioned at the launch at Stockley Park, and one that is obviously a spin-off from the Mac development program (or is it the other way round?), is the new SCSI-DMA card for the Apple II range. We do not yet know when this will appear in the UK, but hope it will be very soon. Apple UK are continuing to push the IIgs and the Apple II line into the background wherever possible.

This is the last issue of the magazine under the present committee. By the time you read this, the AGM may well be over. We shall be announcing the new committee in the May Apple Slices. There may be few surprises, but I for one hope that there will be some new faces round the committee table. Those of us who keep the group running are finding it more and more difficult to keep up with the increased demands that the growing membership make of us. Remember that it is a self-help organisation. Even if all you can do is write us an article, please help the group along by contributing some of your own precious time. Without this kind of input, we are not giving our best to you. We do not commission articles for the magazine, they are almost all contributed by members.

As I write this I am about to change all the clocks in the house to British Summer Time. It is amazing how many systems have been evolved that must have clocks fitted. By the time I have changed the cooker, the video, my watch and all the various computers, I will probably have forgotten about the clock in the car! I think I counted nine in all, and only two are really used to tell the time with. I suppose it is not too much to ask for the Japanese to invent a chip that would take care of the bi-annual time change automatically .....

**Ewen Wannop**


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**The Editorial team is:**

**Apple II**
Ewen Wannop

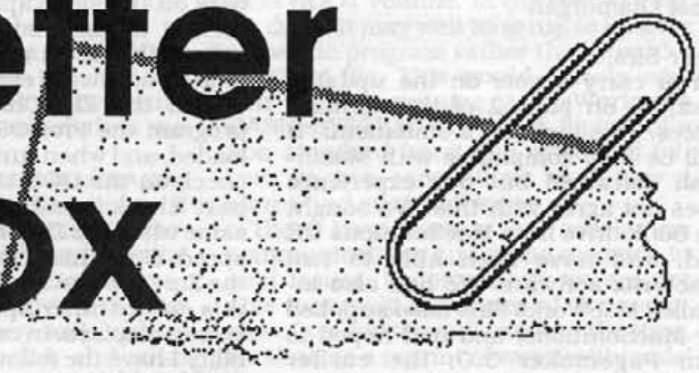
**Macintosh**
Norah Arnold
Irene Flaxman

Many thanks to all those who work behind the scenes and who receive no personal credit. These people are the stalwarts of Apple2000.

Additional thanks to Walter Lewis of Old Roan Press (051-227-4818) for our printing service, to Ian Sharp of Sharp Studios (051-227-2788) for our cover design and to MacLine for the use of their Electronic Pen postscript images.

Apple2000 are Founder Members and Wholehearted Supporters of the **Apple User Group Council**

# Letter Box



## Xtras Mailbox

Sunbury-on-Thames
Middlesex

Dear Sir,

Having an un-enhanced //e, I thought I would give AppleXtras a try. The (5.25) disk duly arrived, closely followed by the January Apple2000. The latter (p11) shows that 5.25 disks are for the IIgs, //e and //c, 3.5 disks for the IIgs only.

It then shows that the ShrinkIt programs for the //e are distributed only on the IIgs disk! The preamble to the 5.25 section threatens to use ShrinkIt for "files on the AppleXtras disks". This appears, in the absence of any sensible explanation to indicate that I have wasted my money and will be quite unable to access some programs intended for my poor old //e without going outside the Xtras system.

What is the difference between the II+ and //e versions? Perhaps this should have been mentioned too ... Is there any point in having the //e version if the II+ version works just as well?

I do suspect that many //e owners beside myself would like a published explanation and, if appropriate, correction.

**R Teale**

❑ You asked for an explanation about the AppleXtras disks, so here it is:

1. There is so little room on a 5.25 disk, that in order to give you all your 'moneys-worth' from the stocks of PD material that flow into the group, no programs were included that had already been issued on 5.25 inch library disks. ShrinkIt for the //e was issued last year on disk PR019 in the ProDOS library. It is suitable for the IIgs as well as the //c and //e.

2. The II+ version of ShrinkIt displays in 40 cols only and is stripped of all the 'bells and whistles' of the //e version. There are no disk utilities or file view for instance, but it extracts files in exactly the same way. Certainly you do not need the //e version if you have the II+ one. I apologise that this was not mentioned in the AppleXtras section in the last magazine.

3. No files were included on the first 5.25 Xtras disk that needed ShrinkIt. It was a 'threat' that they might be used in the future, and in fact the second disk as you will see is completely 'Shrunk' in order to give you even more for your money. You will find details of how to use the ShrinkIt II+ program in the AppleXtras section of this issue.

4. The AppleXtras disk were not intended to be totally self sufficient. No ProDOS is included for instance, and it is assumed that you already have some form of file copy utility. ShrinkIt having been already issued on 5.25 disk, also fell into this category.

Making up the Xtras disk was not easy. Trying to give you a balance of programs and fit them all onto one disk is a bit of a nightmare. The IIgs disk has the advantage of more space and so I was able to put on a copy of ProDOS with Glen Bredon's program selector on. However, this program selector can only run P8 (standard 8 bit ProDOS) programs, and will not run the GS/OS files that are present on the disk. Also, some of the programs will not run if launched from the Finder using a single drive!

I hope you accept my apologies for any confusion that I may have given you, and I hope that this issue of the Xtras disk will go smoothly!

**Ewen Wannop**

## AppleWorks Letterbox

Alderney
Channel Islands

Dear Apple2000,
Re: Apple //c and AW3.0

While the Mac allows one to set a print option to A4 size paper, my old AppleWorks manual says in three places "The maximum you can use is 25.4 inches", but A4 paper is 10.7 inches and yet my Epson MX80FT and Silver Reed 500 both resolutely refuse to recognise this measurement.

Perhaps I have confused the program by using serial cables to the printers? Would AW3.0 help?

Can you help?

**Peter Arnold**

❑ I think that it is simply the printer that will not allow such a measurement. They do not expect to see anything larger than US Legal paper or our own Foolscap size. The cables would have no effect at all. AppleWorks 3.0 would make no difference to the problem either.

**The Boffin**

---

Jalan Senyum
Singapore

Dear Apple2000,

Do you know of any utilities that allow me to print the Sterling £ sign inside AppleWorks? It is frustrating because my keyboard has the Sterling £ sharing with the "#" sign.

**A. Mahmood Merican**

Eccles
Lancashire

Dear Apple2000,

I'm using AppleWorks 3.0 on a IIgs to write a thesis. I haven't run into any major problems but:

(1) Is there a way to print out in italics?

(2) Can you give me some *simple* instructions on how to print half-size superscripts?

(3) Is there any software or update that will do automatic up-dating of reference numbers on AppleWorks 3.0?

I'm sure I'm not the only AppleWorks user who would find these features useful.

**Peter D Mohr**

❑ The problem in getting AppleWorks to print in other than a normal typeface is not so much with AppleWorks as whether your printer is able to do it. If you have a printer using a built-in character set it will either print a '#' or a '£' depending on the internal switch settings. Check your manual for details of changing from the US settings to a UK setup.

Some printers will allow you to print other characters by prefixing them with special commands. Again you would need to check you printer manual for this.

Check out page A-10 in the AppleWorks 3.0 Reference manual for details of entering special print codes, or page 199 in the AppleWorks 2.0 manual.

If your printer is capable of printing

Please submit all letters and articles to the magazine on disk wherever possible. The disks will be returned to you when the magazine is published. If you have a modem, send us letters, articles and Public Domain programs either to BSG005 or to TABBS [illegible]

Graphic dumps, you may consider using a print utility like TimeOut SuperFonts. This module attaches to AppleWorks and uses standard loadable fonts giving a print out with a very high quality NLQ result. You can choose from many faces in the library.
**The Boffin**

## Small 'C' Letterbox

[redacted]

Dear Apple2000,

I have a small 'C' on CP/M library 5.25 Disks C002, C003, and C004. All my efforts to get into small 'C' with these have failed. Whatever program I write is overwritten by a small demo program in assembler. I think I've tried just about everything. I'm enclosing printouts of the directories of the disks, in case I have a file [or a disk] missing. The ondisk manual doesn't help, nor do any of the books.

Due to the popularity of 'C', maybe putting this letter in Letter Box would help, as, unless my disks are different from everyone else's, many members will have similar problems with Small 'C'. If my disks are OK, maybe this letter will help me contact users of Small 'C'. You may publish my full address and phone number.
Bert Gee

❑ Apart from some extra files on C004 (presumably your work files, the PROFILE ones) the disks check out OK. I do not have any experience of 'C' myself, so we must rely on some other member who can help with this one.
**Editor**

## Lisa/XL Letterbox

Port Talbot
West Glamorgan

Dear Sirs,

You carry a note on the updated Lisa/XL on page 2 of the January Slices. This includes a statement: "It will be fully compatible with Macintosh software" but our experience does not agree with this. We bought an 800k drive from MacSolutions UK Ltd. and have been able to run MacWrite software. We had also installed MacWorks Plus (also supplied by MacSolutions) and had hoped to run Pagemaker 3.0; the earlier MacWorks would only run PageMaker 1.2 or was it 1.5? I forget).

Pagemaker 3.0 w.as duly installed and MacWrite documents are converted into appropriate column widths - but the kerning is all wrong and letters .are too close together both on the screen and when printed using our LaserWriter. The result is we cannot use our XL as planned, i.e. as a back-up for our Mac SE. Mr. Townsend has been very cooperative and has spent much time trying to help us get over our problem, but to no avail.
**Desmond Leighton**

## General Letterbox

[redacted]

Dear Boffin,

A variety of questions here! I am experiencing some difficulty with a ZIP CHIP 8000 I received from America a couple of weeks ago ie when I boot up the display has vertical green bars on the video apart from a small section in the middle. I am led to believe this is an indication of some kind of hardware error. Is this true?

With the Zip Chip configuration program the ProDOS side has never loaded, and when running the System check on the DOS side it fails to get past check number 5. This is the same when the Zip Chip is run at slow speed. Does this definitely imply that the Zip Chip is at fault? I have also run this on two other Apple IIs with 'odd' screen displays. In case of incompatibility I have the following cards in my other slots:-

Slot 1 - Epson printer card
Slot 2 - Mastercard Serial Card running Nightingale Modem
Slot 4 - Cirtech Ram Card
Slot 5 - Disk II drive controller card
Slot 6 - Disk II drive controller card
Slot 7 - Ice Hard Disk Controller card.

When I do an Solid-Apple Control Reset it goes through a diagnostic and produces the message Kernel OK. What does this mean? What does this test, or not test? Is it just the CPU or everything that is OK?

Do all versions of ProDOS look for a certain file type to boot when loading ie a .System? Or does it need a file called Basic.System to run?

My reason for asking this question is as follows. To get AppleWorks 2 running on my Ice I first had to create two ProDOS volumes and setup a User. The formatting software allows you to copy a floppy into the volume but it only worked if I previously copied on the ProDOS filer and afterwards booted the hard disk, loaded the File Basic.System from floppy and saved it on the hard disk and then ran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the Filer program to load all the AppleWorks files. I then found that by renaming the file Aplworks.system to Basic.System it boot without first having to go into the ProDOS Filer, Quit out of it and then enter Aplworks.system which then ran AppleWorks.

My next question concerns modems and communications. (I have the Pace Nightingale modem and Data Highway running from Mastercard). Being a complete and utter novice in this area, have you any article(s) on how to use a modem and what bulletin boards are available? I have reached the stage of setting up the modem and running the self-test which which echoes the characters on screen and the power data led flickers green/red. Presumably I can access TABBS by dialling, but I don't want to waste masses of time or restrict other peoples use! Again, as a complete beginner, what 'tests' can I do to experiment?

This WILL be of interest to ICE HARD DISK owners/users - I have a version of an Ice Housekeeper disk (version 4.1) that has software enabling an Ice Hard Disk to run ProDOS 1.0.1, CP/M, DOS and Pascal. I have also successfully managed to load and run (after a bit of a fiddle as described above)

AppleWorks 2.0. If you use a Cirtech Ram Card and have patched your versions of AppleWorks and Pascal prior to loading on the Ice Hard Disk enables it to recognise the Ram Card. I suggest if anyone is interested you print my address in full and that they contact me directly.

Thanks again for an informative magazine!

**David Beale**

❑ You have the latest version of the Zip chip, and we have not as yet tested it ourselves. It does sound as if things are not working properly. If you have had similar results on other Apple II's then it sounds serious. The way to check if it is the cards that are causing the problems, is to remove all the cards and try with a bare machine. The Ice controller card uses DMA to access memory and has been known to interfere with other cards in other slots at times. Have you tried running the machine without this card? The disk sounds faulty as well if it will not boot on both sides.

ProDOS looks for the first file in the top directory of filetype $FF and with the name suffix .SYSTEM this of course can be BASIC.SYSTEM or an application program. ProDOS is itself a SYSTEM program, but it will be loaded wherever it is in the top directory. This of course is for a normal ProDOS BOOT volume. In the case of your Ice drive, it may well be setup to look for a specific program rather than just the SYSTEM file. This would explain why you had to rename AppleWorks to BASIC.SYSTEM. The Ice is typical of a non-standard hard disk drive and follows its own conventions as to how it stores and runs software.

There have been a few articles on communications and using modems in past issues. Unfortunately we are not able to supply old copies of the magazine. One day if we all can find the time, we shall do a reprint of various 'threads' from past magazines.

Do not worry that you are a beginner when you give TABBS a call. You will not do any harm to the system. Just remember we all had to start sometime. TABBS will throw you off after thrity minutes anyway if you stay on too long!

All you need to do is take it all slowly and remember exactly the password that you you enter when you sign on. You will need to use that one the next time you call. TABBS is sensitive to upper and lower case letters, so the password must be the same each time.

There are no tests really that you can make other than dialling up a system like TABBS. We all have to learn the hard way so do not be worried about taking the plunge. You will find many new friends when you call.

If you check the popular computer magazines such as Computer Shopper, you will find lists of the many Bulletin Boards around the country. TABBS and our friends at MacTel are the only two devoted solely to the Apple.

**The Boffin**


## New Software

**Batman: The Caped Crusader** £29.95
For 5.25" 128K //s, by Ocean/Data East

**Ancient Land of Ys** *£34.95
Action adventure for 512K GS

**Arkanoid II (Taito)** £24.95
512K GS sophisticated "brickout"-type arcade game with stereo sound

**Crystal Quest (Casady & Green)** *£34.95
Famous Mac game now converted for 512K GS

**Graph-It! (TimeWorks)** *£69.95
Professional level WYSIWYG business graphing system for 128K //ecGS. Uses AppleWorks, DB Master, AppleWriter, or ASCII files. Export graphs & charts to Publish-It!, Dazzle Draw & MousePaint etc. Double-strike, sideways, & colour printing options. Prints on LaserWriter using Publish-It! 2 or Publish-It! w/Laser Pack.

**JumpStart v2.6 (MainFrame)** *£4.50
$29.95 Shareware IIGS launcher - the best - knocks the socks off Finder - got 5-Apples highest accolade from Nibble magazine March'90

**RepairWorks (Q Labs)** *£39.95
Examines AppleWorks files & surgically removes offending problems, reducing or eliminating the need to recreate your work

**SuperPatch v6.1 (Q Labs)** *£39.95
Installs over 100 patches on AppleWorks v3, and over 150 on AW v2/2.1

**Where in time is Carmen SanDiego?** £29.95

**CrossWorks v2.0 (SoftSpoken)** *£99.95
New price, and new features like full IBM-PC MicroSoft Works compatibility, and ability to transfer ProDOS text files to MS-DOS ASCII file, AWP to IBM ASCII suitable for just about any PC WP program, ADB to IBM delimited ASCII database for just about any PC DBMS, etc. - ask for details

**EasyDrive (Q Labs)** *£69.95
This excellent hard disk manager/backup system just became GS/OS System 5 compatible

**ReadyLink (Applied Eng)** *£99.00
Mac-like comms software for //c, //eE, & IIGS supporting Hayes, VT-100, XMODEM/CRC/YMODEM

**Copy II Plus v9 (Central Point)** *£39.95
New parms, new main screen, hot-key or mouse selections, built-in program launcher lets you build a menu system to run your favourites from within CII+, (usable as a hard disk management system). Now requires 128K, so ][+ users should stick to v8.4 or below. Upgrades available on part-exchange basis, just send complete package w/£19.95.

## New Kit

**5/8 Adaptor (MGA)** *£9.95
allows //c users to use standard IIGS/Mac mini 8-pin cables or peripherals

**Transwarp II (Applied Eng)** *£169.00
New accelerator board for ][+ or //e running at over 7MHz

**Zip Chip model 8000 (Zip)** *£199.00
Runs at 8MHz, for ][+, //e or //c. - *NOW IN STOCK*

**CS-600 Joystick (Contriver)** *£29.95
Stylish, black, with stick fire-button, selective self-centering or free-floating modes, plus fine trim on both axes. D-9, 16-pin or IBM-PC D-15, (switchable IBM-Apple).

**CS-800 Joystick (new model)** *£24.95
As above, but platinum in colour, w/brown stick, different design. Previously; this joystick was dual-mode, but is now supplied only as self-centering.

**MaxiPrint** £49.95
The budget alternative to our hugely successful electric MacInker. MaxiPrint is truly universal, will re-ink virtually any ribbons you, your friends, or school, or business have, you just have to do the work yourself, as MaxiPrint is a manual device.

## More New Software

**Jam Session (Broderbund)** £39.95
This 16-voice sound, colour, stereo music program now converted for 768K IIGS from the original Mac version.

**ORCA/C (ByteWorks)** *£150.00
At last, a true IIGS C from the people who wrote APW.

**Downhill Challenge (Broderbund)** *£29.95
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# CompuServe/Forum®

## We bring you a **FREE** introductory membership offer from the worlds largest personal information service

**Why should I join CompuServe/Forum?**

If you have a modem, enjoy calling TABBS or other Bulletin Boards, have a thirst for knowledge, wish to talk to the people who actually make and market Apple peripherals, download the latest Public Domain and Share-Ware software, talk to other users, find out what is going on in the global Apple community or just see what the weather will be like at Southfork this coming weekend, then **CompuServe**/Forum, is the place for you.

**CompuServe**/Forum is the world's largest personal information service. It has both specialist and general interest areas ranging from as far apart as a Scuba diving Forum to a Sci-Fi/Fantasy Forum. This is all in addition to the EasyPlex International message service and the MAUG Forum (Micronetworked Apple User Group). MAUG is where I am sure you will be heading as fast as you can.

**MAUG**

MAUG now consists of eleven separate forums each specialising in some aspect of the Macintosh or the Apple II. In the sample online session shown on the opposite page you will see the various forums and libraries available. This is not a complete list, but only the small sample that we could manage to fit on to the page!

Each Forum has a range of options, from download libraries to a message system. It is here in the message system that you have the key to talking to the world of Apple computing. Anyone can join in the message threads and take part in discussion and online conferences.

There are news areas where the latest information on the Forum and the libraries, is posted. Check this area every time you log on so you do not miss the latest happenings.

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Bristol
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Once you have got your starter pack, get your modem, credit card (all major cards are supported) and a pen and paper handy, and call up Istel and **the CompuServe**/Forum. Follow the on screen directions, noting all the ID Numbers and Passwords you are given. Take your time at this, you are not being charged while you join up, and you do not want to make any mistakes! It is wise also to have your capture buffer open so you can print out all the information that **CompuServe**/Forum will give you.

If you miss the Help instructions you can always take a look again later. While you access the **CompuServe**/Forum Help files and system areas you are not charged for your on line time.

**How much is it all going to cost me?**

For most places within the UK you will be able to dial a local call to access the Istel network. It is through this network that you will access **CompuServe**/Forum. A list of access points was given in the March Apple Slices and is also given in the starter pack you will receive. The cost of the local phone call must be paid to BT directly. From there on you will be charged at the standard rate of $22 an hour. This is made up of two charges, a $12.50 online charge to **CompuServe**/Forum and a $9.50 connect charge through the Istel network. In addition you will be charged $1.50 a month standing charge to keep your account open. Your credit card will be billed each month at the current dollar/pound conversion rate.

There is no 'volume' charge and the $22 rate applies 24 hours a day. It will therefore only cost you the extra cost of a peak rate local telephone call to give **CompuServe**/Forum a check over every morning!

**Anything else I should know?**

You may call Istel at any speed from 300 to 2400 baud. If your modem can handle MNP correction then this will automatically be switched on as well. **Note:** The starter pack says you should have your computer set to a word format of 7 bit Even parity. If you are using any old computer then this is probably correct, however for all Apple computers you should in fact set your word format to 8 bit No parity. If you are set to 7 bits you will not be able to do any protocol downloads as the data will have the 7th bit stripped and lose its integrity.

**Should I still be on The FORCE?**

Yes, you should stay on the FORCE. **CompuServe**/Forum although it offers Telex and the sending of Fax, at present routes all these through the States. It is far too expensive to send them this way to the UK.

**CompuServe**/Forum is a different kind of database to Telecom Gold. It is more like a grand and enormous Bulletin Board than a standard E-Mail system like The FORCE.

**Once you are online**

Send Apple2000 a postcard with your User ID number. We shall then publish a list of names and numbers so other members will know how to contact you through your ID online.

Your password is your security, change it often, and always change it if you think someone may have seen you type it in. If you use macros in your communications program, make sure you do not leave these files around on disk for others to see.

If you download any software, and you do not see the software appear on TABBS or the libraries in the normal course of events, please share it with us all and either upload to TABBS or send it in to the library on a disk.

**Sample Session**

On the next page we have printed a sample session on **CompuServe**/Forum. This runs through the MAUG range of Forums available to the Apple community.

Join up soon, have fun, and see you all soon online!

**0800-289-378**

**CONNECT**

ISTEL COMMUNICATIONS NETWORK (N4000P16)
ENTER SELECTION OR 'MENU'
CIS
CALL CONNECTED (N4000P16)

User ID: 99999,999
Password: ******_******

**CompuServe Information Service**
03:40 EST Friday 16-Mar-90
(Executive Option)
Last access: 16:58 10-Mar-90
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**What's New This Week**
Copyright Awareness Information
2 Save on CompuServe Merchandise during Spring Sale
3 CB Simulator Celebrates 10-Year Anniversary
4 NASA Now Provides News Releases Online
5 Shop Free of Connect-Time Fees at The Mall
6 Last Chance to Sign Up for Fantasy Baseball
7 Fox Software Opens New Support Forum
8 Macintosh Forum Features Cliff Johnson
9 Save $5 with IQuest General Reference SmartSCAN
(Above Articles are Free)
10 Online Today
11 Forum Conference Schedules
Enter choice ! GO MAC

**MACINTOSH**
1 Art and Design Forum
2 Communications Forum
3 Community/New Users Forum
4 Developers Forum
5 Entertainment Forum
6 Hypertext Forum
7 Productivity Forum
8 File Finder
9 Vendor Forum A
10 Vendor Forum B
Enter choice number ! GO MACPROD

**Mac Productivity Forum**
1 Forum Bus./General
2 Word Processing
3 Databases
4 Spreadsheets/Models
5 Accounting/Finance
6 DAs/FKEYs/INITs
7 Utilities
8 Using System/Finder
9 Mac System H'ware
10 Disks/Storage
11 Other Hardware
12 Past Hot Topics
13 Early Macs
14 Macintosh II Apps
Enter choice ! GO APVENA

**Apple Vendor A Forum**
1 Forum Business
3 Applied Engineering
4 CE Software
5 DeltaPoint
6 1st Class Periphrls
7 Mainstay
8 Stone Edge Tech.
9 Survivor Software
10 TOPs
11 Fifth Generation
12 Broderbund
13 Beagle Bros.
14 Claris
15 TENpointO/Activis'n
16 Aapps Inc.
Enter choice ! GO APVENB

**Apple Vendor B Forum**
1 Forum Business
2 GCC Technologies
3 Altsys Corp.
4 Jasik Designs
6 Olduvai Corp.
7 Software Ventures
8 STAX!
9 T/Maker Inc.
10 Working Software
11 Microseeds Pub.
12 Hyperpress Pub.
13 Opcode Systems
14 Radius Inc.
15 Deneba Software
16 SuperMac Technology
Enter choice ! GO MACNEW

**Visitor's Announcement**
Welcome to the Macintosh Community and New Users' Forum! This is the place to continue discussions that don't "fit" into other areas as well as to keep up on the rest of the Forums. And, it is the best place for new users to start off as well as a worthwhile area for the old pro. Please read the membership information announcement for more details and we hope that you will join us.

Enter choice ! GO APPLETWO

**APPLE II AND III**
1 Entertainment Forum
2 Productivity Forum
3 Vendor Forum A
4 Vendor Forum B
Enter choice ! GO APPFUN

**Apple Entertainment Forum**
1 IIGS Games
2 Apple II Games
3 Game Aids/AddOns
4 Education (Home)
5 Education (School)
6 Zounds! Sounds!
7 The Music Box
8 Music and MIDI
9 Art Programs/Tools
10 Illustrations
11 HyperStudio
12 Past Hot Topics
13 R-Rated Art
14 Forum Business
Enter choice ! GO APPRODUCT

**Apple II Productiivty Forum**
1 AppleWorks (AW)
2 AW AddOns
3 AppleWorks GS
4 N.A.U.G. (AW)
5 Hardware
6 Developer Software
7 Utilities (][-//)
8 Utilities (IIGS)
9 Desktop Pub/Fonts
10 IIGS DAs/INITs
11 IIGS Software
12 Apple II Software
13 Apple ///
14 Telecommunications
15 Applefest Plans
16 Forum Business
Enter choice !

**CALL DISCONNECTED (N4000P16)**

# Hardcore Pips

## Cliff Wooton in July 1983 had a look at the inner workings of the Apple disk media - Unchanged to this day!

### A JOURNEY TO THE CENTRE OF THE DISK

All serious users of Apple computers must be aware how much the system relies on its Disk Drives. The same is true of any comparable system. Apple however, have chosen to set up their own standards of information encoding on floppy disks. This article will look into the standards themselves, and describe the way that the information is transferred to and from the disk, with particular emphasis on the differences between 13 and 16 sector Apple encoded disks.

**In the Beginning**

Information was sent interspersed with clock pulses. This made it as easy as possible to recover the data, and gave a good margin for error, both in speed variation, and amplitude variation.

The disk's magnetic material is therefore magnetised as follows:-

A data "1" (or a clock pulse) is therefore coded as a reversal of flux. On playback, this flux reversal causes a voltage pulse to be developed across the R/W head.

The voltage pulse is positive for one polarity of change, and negative for the other.

To recover the information, we must locate accurately the highest point of both positive and negative peaks. This is difficult to do directly, especially if the disk has been shifted to another drive. The recovered amplitude of data will go up and down twice per revolution if there is any centering error and there usually is some error, even on the most reliable drives.

The commonest method for overcoming this difficulty is to pass the recovered data into a differentiator. Theoretically, the peaks will correspond to areas of zero slope, and will be differentiated as the zero crossing points of the differentiated output waveform.

The differentiator output is fed to a comparator to restore the same shape (or the inverse) of the data fed to the disk.

To restore the original data stream, it is only necessary to generate an unidirectional pulse from every edge.

Virtually all simple floppy disk systems use the above approach.

The rate of sending data is obviously fixed at the clock pulse rate, or, to express it in terms of the disk, fixed at two flux reversals per bit, (for an "0" bit it's only one flux reversal per bit, I know, but we've got to take the worst case of all "1"s data).

Because of physical limitations of R/W heads, the time for one flux reversal was fixed at 4ps, giving a data rate of 125,000 bits/second, (later on, with better R/W heads, it was reduced to 2ps - Double Density - or even - Quad Density - giving data rates of 250,000 bits per second and a staggering 500,000 bits/second).

The data recovery circuitry of such systems can either use a simple monostable triggered from a clock pulse to decode the data, or a phase locked oscillator can be synchronised to the incoming data to do the same job as shown.

**I'll Take The High Road**

As we've seen, in any 8 flux reversal periods, 4 clock and 4 data pulses will be sent.

Apple decided that sending so many clock pulses was a waste of time. They also decided that a monostable would be fine for decoding the data (instead of a phase-locked loop), and that they could find another way to synchronise the start of a sector of data other than specially missing out clock pulses, (the data on a floppy disk is stored in fixed length units of data, usually 128,258512 or 1024 bytes long - these units are recorded on distinct concentric tracks on the disk - usually 10 to 16 units per track, the units of data are generally referred to as (SECTORS).

If the first of the pulses in our 8 pulse group is a "1", Apple reasoned, then a way exists to synchronise everything (see later explanation).

They now have seven pulses to carry information.

Information cannot be encoded directly though, as Apple still must have pulses to trigger their monostable, but we can now miss out any of the seven remaining pulses, providing both the pulses on either side are "1"s.

There are 34 unique codes that obey these restrictions.

| Hex | Binary |
|---|---|
| AA | 10101010 |
| AB | 10101011 |
| AE | 10101110 |
| AD | 10101101 |
| AF | 10101111 |
| B5 | 10110101 |
| B6 | 10110110 |
| B7 | 10110111 |
| BA | 10111010 |
| BB | 10111011 |
| BD | 10111101 |
| BE | 10111110 |
| BF | 10111111 |
| D5 | 11010101 |
| D6 | 11010110 |
| D7 | 11010111 |
| DA | 11011010 |
| DB | 11011011 |
| DD | 11011101 |
| DE | 11011110 |
| DF | 11011111 |
| EA | 11101010 |
| EB | 11101011 |
| ED | 11101101 |
| EE | 11101110 |
| EF | 11101111 |
| F5 | 11101111 |
| F6 | 11110110 |
| F7 | 11110111 |
| FA | 11111010 |
| FB | 11111011 |
| FD | 11111101 |
| FE | 11111110 |
| FF | 11111111 |

Codes $AA and $D5 are the most difficult to resolve correctly, they contain the maximum number of zero's in odd and even places. They are not used to store data, but to synchronise the system. They cannot occur, one after the other. In any bit sequence used to store data, therefore a random "start" signal cannot occur.

**How the Leading "1" Synchronises Successfully**

The Apple Disk 11 System can only transfer 8 bits of data at once. This is limited by the 74LS323 8 bit shift register used.

During the gap between sectors, a pattern of $FF bytes is written to the disk, with a one data bit gap between bytes.

On play back, clocking in of the byte only starts when a logic 1 is found. Therefore, if the system starts up, or gets out of synchronisation, then the nine bit pattern will move along the eight bit register, until, after the eighth byte, the system will be in byte synchronisation, with the solitary zero being read at the beginning of every byte, and ignored.

During the active data periods of the sector, the 8 bit bytes are transmitted right behind one another, so not wasting the ninth bit period, which is only needed during the $FF synchronisation bytes.

**Megalomania**

Having managed to get 5 active bits encoded into every 8 bits fed to the disk instead of the standard 4, Apple might have been expected to rest on their laurels. But no! The Apple Pascal development needed as much room as they could get. In particular, a single drive system with 13 sector Apple encoded data would have been impossible - not enough room for all the utility programs plus user program.

So Apple came up with the idea of double zeros. That is, put two zeros side by side in the seven pulses they have to carry data in every eight bit group.

There are 85 unique codes that obey these restrictions.

Apple's 16 sector format, used by DOS 3.3 and Apple Pascal etc., uses 64 of these codes to encode 6 bits of data in every 8 bit group.

The 16 sector format is therefore going to have reduced tolerance levels on both speed of drive setting and amplitude of signal compared to the 13 sectors format.

The chances of moving a 16 sector disk from one drive to another is therefore less than the chances of moving a 13 sector disk successfully.

The speed is important, as the decoding now has to correctly identify two consecutive zeros, not one.

If a good theoretical differentiator is used, then the amplitude margin is insufficient to get satisfactory results with the double zero. So the differentiator performance has to be reduced, resulting in worsened timing jitter, to give an acceptable decoding margin. The difference in decoding margin between single and double zero systems can be seen in the following measured results.

The theoretical margin for error drops from:
+/-1/3 to +/-1/5 (+/-33% to +/-20%)

The amplitude is important, as the slope of the recovered data is equal to the output voltage of the differentiator.

The slope for two consecutive zeros must be less than that for a single zero.

**Cliff Wooton**

---

❑ The Apple 5.25 drive was of course the first of a long line of Apple Disk drives. The Apple /// used the same drive repackaged in a different box, but with a new operating system called SOS. This operating system was eventually to develop into ProDOS. The data was still encoded however in the same way on the disk.

When the Lisa was first launched, it too had a 5.25 inch disk drive fitted, though the disks were different in some respects to the standard 5.25 Apple II floppies. The majority of the Lisa machines were however fitted with the now standard 3.5 drive, though in a 400k version only.

The Macintosh first appeared with this 400k drive as well. It was fairly quickly superceeded by the 800k drive. This in its turn has been replaced by a 1.4 mb SuperDrive.

If you examine a Macintosh disk closely, you will see that the data is encoded in the same way that Cliff describes. This has made all Apple disks unique from other computers.

It is also interesting to note the reason why Apple, or rather Steve Wozniak, chose this method of encoding data on the disks. At the time the Apple 5.25 drive was launched, a normal disk drive bristled with electronics and chips. This made them so expensive that it was unrealistic to put these on to an Apple II. Steve Wozniak simply bought the bare drives with their heads and stepper motors only. Using a simple interface with only a few chips, he was able to use the power of the computer to provide all the logic that was normally resident in the drive itself.

The only drawback to this system is the processor overhead needed to read and write data to the disks. Interrupts must be switched off during disk access. This can cause problems when using some communications software.

**Ewen Wannop**


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NO-001 Slide-On Battery for IIgs $14.95

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AM-001 AMR 3.5 drive $199.00
AM-002 AMR 3.5 controller for IIe $59.00

## Prosel 8 and 16

Prosel is a comprehensive disk utility package. Prosel 8 works in the ProDOS 8 environment. Prosel 16 (includes Prosel 8) in the GS/OS environment of the Apple IIgs. Includes file and disk copy and backup utilities, program selector, scheduler, and much more.

GB-001 *Prosel 8* $40.00
GB-002 *Prosel 16* $60.00

## Stack Support

Stacks have arrived in the Apple II kingdom and we're ready to offer charter subscriptions to the first Apple II publication about hypermedia. It's published 6 times a year as a set of stacks and distributed on 3.5 disks. ***Stack-Central*** includes the latest information on Apple II hypermedia developments, authoring tips, clip art and sounds, and samples of the best public domain and shareware stacks we can find. Requires *HyperStudio*.

SC-1 ***Stack-Central*, six 3.5 disks $42.00**

## HyperStudio

*HyperStudio* is the first program to take full advantage of the sound and graphics of the Apple IIgs. It's HyperCard-like, for those of you familiar with the Macintosh, but cards can use the full-color capabilities of the IIgs and no scripting language is required. You can create stacks and add sounds by point and click.

RW-005 ***HyperStudio*** $129.00
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A2-Central

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M291

# AppleXtras

❑ The launch of the first AppleXtras disk did not go without a few teething problems. You will see the letter from Ron Teale in the letters page and my reply. We also had another problem reported which relates to using GS/OS 5.0 with only a single drive.

The second issue of Xtras may well bring a new set of problems as we have used ShrinkIt for all the files on the 5.25 disk. The following notes may help resolve any problems that you may have been having so far.

1. It is not intended that the AppleXtras disks should be totally 'stand-alone'. You will need some other basic program tools as well. At the moment all that is needed is some kind of file copy program such as the Filer from the ProDOS master disk, or Copy II+. Both these programs will allow you to copy files and rename them where necessary.
2. You will need a copy of ProDOS to place on any boot disks you make, or in the case of the IIgs, GS/OS version 5.0 or later.
3. You will also need to know where to put the files in order to make them work. In most cases this should be evident from the printed notes. If in doubt use the following guidelines:

**The ProDOS 8 5.25 inch disk**

❑ SYSTEM files must be the first SYSTEM file in the directory of the disk. The disk must have a copy of ProDOS 8. When you boot this disk (ProDOS 8 is simply standard ProDOS. The '8' is used to distinguish from ProDOS 16 for the IIgs) the SYSTEM file will be run. Files with filetype SYS are all SYSTEM files. If the filename does not end with .SYSTEM you must rename it so it does. The ShrinkIt files on the first Xtras disk should be renamed in this way in order to run them from ProDOS. It is not always necessary to rename them if you are launching them from a program selector.

❑ DOC files should be read using List.System, a word processor or AppleWorks.

❑ BAS files should be launched from Basic. If the file is renamed to STARTUP, it will be run automatically as Basic is started.

❑ BIN files in some cases can be BRUN from the Basic prompt. If the files appear in a subdirectory with another program file, they will probably be simply a data file related to that package.

❑ AWP, ADP and ASP files should all be loaded into AppleWorks for viewing.

**The IIgs 3.5 disk**

❑ GS files may be of many different filetypes, there are in fact 256 to choose from! You should wherever possible copy these files using the Finder from System 5.0 (or greater) as new programs are now beginning to appear with Macintosh like resource forks. No other copy program can cope with these kind of files without losing the resource fork.

❑ See the above notes for details of what to do with ProDOS 8 filetypes.

❑ NDA and CDA files ($B8 and $B9) should be placed in your Desk Accessories folder and the system rebooted. NDA's will appear on the Apple menu and CDA's on the OA-Ctrl-Reset Control Panel.

❑ S16 ($B3) files are application programs and should be run from GS/OS, either use the Finder or a program selector like ProSel 16.

❑ PIC files ($C0 and $C1) should be viewed with a paint program such as PaintWorks Gold, or one of the picture view NDA's. They can of course be re-painted if you load them into a paint program.

❑ ICON files ($CA) should go in the ICONS folder.

These are the major filetypes that you will encounter on the disks. In order to make an S16 program auto-boot, it should be placed into the SYSTEM folder of a desk that has System 5.0 installed. Name the program START and it will be run automatically on boot. The existing file called START on a freshly installed copy of the System will be the FINDER. If you rename that to FINDER you can run it later if you wish. You may however wish to remove it all together to make more disk space.

**Single Drive Problem**

A problem was reported by a member who only has a single disk drive on his IIgs. He tried to run the card games from the GS AppleXtras No. 1. He launched System 5.0 to the Finder and ejected the disk. Inserting the Xtras disk he selected one of the games. After some disk access he was asked for the System disk once more. With this inserted, loading continued and the game started up. However, whether it is a bug in GS/OS or a bug in the program, the card shapes were not loaded and the screen was garbaged. Running on two drives solves this problem, using a RAM disk or copying the games to the actual System 5.0 boot disk would also have cured the problem.

**AppleXtras No. 2**

The second issue of AppleXtras includes a large amount of 'shrunk' programs. You should use either ShrinkIt for the //e or the II Plus ShrinkIt from the 5.25 Xtras disk to extract these files.

ShrinkIt is easy to use and full instructions are given with the //e version. The II Plus ShrinkIt is a cut down version with only a few commands. You should make sure you have sufficient disk space to extract the files to. Remember that the file sizes will be enlarged considerably! If you have a second disk drive it is wise to start with a blank disk in this drive and extract to that disk.

Any subdirectories needed by the program will be created as needed during the extraction process. In some cases you will find that ShrinkIt extracts as a complete disk.

To use the II Plus version of ShrinkIt, you should prepare a disk with a copy of ProDOS and the IIPlus.UnShrink program. Rename this file to SHRINKIT.SYSTEM and boot this disk. When you see the menu, remove the disk and put in the /XTRAS.P8.NO.2/ disk.

Select 'U' for unpacking. ShrinkIt will now check what is in the various drives and show you a menu. Use the arrow keys and the return key to select from the menu. 'Parent Directory' will switch drives, 'Current Directory' works on the current level. Selecting a directory will move you one further down and 'Parent Directory' will bring you back up.

Select the source file and use the space bar to select all the packed files within the shrunk original. Press return to start the extraction process. Select the target blank disk with 'Parent Directory', and the 'Current Directory' of that disk. Stand back, ShrinkIt will beep you when done.

## AppleXtras 5.25
## ProDOS disk for the IIgs, //e and //c

**All the files on this disk are shrunk with ShrinkIt.**

**LIST.SHK**
**List.System** - This is a most useful display tool. List.System will display any kind of file, and will attempt to display as text if it can, and displays AppleWorks text files correctly. It can also be used to print a file as well.
**List.Descr** - Details of how to use List.System

**APTZAP.SHK**
**AptZap.System** - A ProDOS Tool to zap or edit disk blocks or files. It also has comprehensive file utilities and a built in Help system.

**DIR.READER.SHK**
**Dir.Reader** - Gives a detailed Catalog in a routine that you can use within Basic programs.

**SHPLD.SHK**
**Shpld.System** - View Super High Res (IIgs) pictures on a normal double hires display.

**AW3FIX.SHK**
**Patcher.System** - From Beagle Bros., version 1.4 of their patches for bugs in AppleWorks 3.0.

**STAR.TREK.SHK**
**Star.Trek.Super** - A classic game of StarTrek in Basic.

**VIRUS.SCAN.SHK**
**Virus.Scan** - Apple II virus scanner by Tom Weishaar.

## AppleXtras 3.5
## ProDOS disk for the IIgs

**Programs Folder**

Sound - **NOIZE.SHK**
**Noize** - When unshrunk and run, this program will play all the sound files resident within the same folder. It comes complete with some sample files.

DA's - **CDATERM.F**
**CDATermSSC** - A terminal program for the SSC in a CDA. Source code is included.

DA's - **ALARM**
**Alarm.CDA** - Installs a handy alarm system to remind you of all those things you ought to have done!

DA's - **CHRONOGRAPH.NDA**
**Chronograph** - Gives an elapsed time counter. Useful for your telephone calls!

DA's - **CALCULATOR**
**Calculator** - Scientific calculator NDA

DA's - **RULER.NDA**
**Ruler** - A moveable ruler that you can use to measure inches on screen.

DA's - **CRAYON16320**
**Crayon** - Changes the screen palettes for both the 320 and 640 modes as you watch. Useful to allow awkward picture files to be displayed correctly.

DA's - **MR.APPLE.NDA**
**Mr Apple** - Cycles the colours in the Apple menu icon.

DA's - **Calendar**
**Calendar** - NDA which opens to display the current month and will show you any year or month.

DA's - **PALETTE.F**
**Palette Puller** - Displays all the palettes being used by the current program.

DA's - **DATES.DA**
**Dates** - An NDA to remind you of forthcoming events.

DA's - **DOODLE.PAD.NDA**
**Doodle Pad** - Bored with writing letters, just pull this down and have a doodle!

DA's - **TWO.APPLES.V1.2**
**Two Apples** - A mystery NDA this one .....

DA's - **RINKY.F**
**Rinky Saver** - A screen saver that displays the Rinky worm in colour.

Games - **MAZE.CREATOR**
**Maze Creator** - Creates mazes to order and prints them out for you on your printer.

Games - **QUAD.SHK**
**Quadronome** - When unshrunk this makes a superb fast and furious game of three dimensional paddle ball. One or two players.

Games - **MSTRMIND.SYS16**
**Mastermind** - A demonstration game of Mastermind written in GS Forth.

Games - **ZANY.BOOT.ETC**
**Zany.Finder** - Boot files and instructions to allow Zany Golf, Bard's Tale and Neuromancer to be run from the hard disk.

Games - **COLORTONE**
**Colortone** - Draws interference patterns as it plays musical notes.

Utilities - **TEXTDSPY**
**TextDSpy** - Text file reader program.

Utilities - **CALIBRATOR**
**Calibrator** - Joystick calibration.

Utilities - **UTIL.WORKS**
**UtilityWorks** - Configurable program launcher. 300 files from 30 programs to launch easily from ten menus. Read the Doc file first.

**ProDOS.Tools Folder**

Tools - **LIFEGUARD**
**Lifeguard** - File recovery utility, tries to recover not only deleted files but damaged ones as well.

Tools - **AUXSET**
**AuxSet** - Modifies the Auxilliary type of a file. Some files ues this byte for data purposes.

Tools- **DEVLIST**
**DevList** - Displays the characteristics of all devices found online.

# A Poke of Apples

## Alan Remu gives us the Complete Guide to the APPLE II Computer

**Different Models - Apple Types**

At present, there are five types of Apple II Computers. The characteristics of each type are listed below.

1. APPLE II. Introduced in 1977. This model had a memory of 48k.

It did not have the upper 16k RAM, named Language Card. It came with an upper-case, Capital Letters only, keyboard. It was supplied with Integer Basic and Applesoft was either loaded from a cassette, disk or via a ROM card fitted in slot 0.

There were many internal electronic changes made. These Revisions were listed on the motherboard by the letters 820-0001-xx, where xx was the revision. These changes did not effect the memory or its basic operation and do not concern us.

2. APPLE II Plus, known here in Europe as the "Europlus". This too had a total memory of 48k, an upper-case keyboard but was supplied with a ROM resident Applesoft, instead of Integer Basic. If required, Integer Basic could be loaded or installed via a card.

3. APPLE IIe. Introduced in 1983. With the arrival of Pascal language and the demand for more memory, the IIe arrived at the scene.

It has an upper memory of 16k already installed. Thus making it a true 64k. It also has the capabilities of Lower-case and is supplied with Applesoft, just as the II+, already installed.

Integer Basic, if required, is again loadable. It has a more sophisticated keyboard, with added keys.

It has a new Auxiliary slot added on the motherboard for the installation of an 80-column text display, with or without another extra 64k memory called an AUX.MEMORY

It has an enhanced MONITOR ROM chip so that it can display this 80-column text as if a card was plugged into slot 3.

When first introduced, it was the height of sophistication. A new chip, the MMU, brought the capabilities of expanding the Computer's memory even further. 80 column cards, with an AUX. MEMORY of another 64k could be accessed via a parallel data bus. The keyboard was added on to. With keys up-arrow, down-arrow, open-apple, solid-apple, tab and delete made the IIe look and act smarter.

Bank Switched Memory. The IIe brought the concept of switching one memory with another. Since the the microprocessor (6502) used in the Apple can only access a total of 64k, and there was 4k extra in the upper 16k bank, an ingenious method of switching the smaller 2k banks was utilised by the IIe. Furthermore, the 12k ROM memory itself was switched in and out with the 16k RAM that was installed. This was achieved by the use of softswitches inside the IIe. By addressing these softswitches, ROM read or RAM read/write could be enabled. All in all, the IIe set new standards in the Apple Computer.

4. APPLE IIc. Introduced in Mid-1984.

It includes all the features of the IIe together with a built in 64k Auxiliary Memory and a 16k ROM. This gave it an addressable memory of 128k.

It has built in features of several cards that needed slotting in on the IIe. The serial printer card of slot 1. 80-column card which occupied 'pseudo' slot 3. Disk interface card of slot 6, together with a built-in 5.25" disk drive. Plus mouse and modem facilities.

Hence, there are no actual slots inside the IIc. All these features are hard 'wired' in. These are referred to as 'SMARTPORTS'.

It has an updated version of the 6502 MPU, known as the more powerful 65C02. It comes in a new 'compact' transportable case, with a matching mini-sized Monitor.

This model became very popular with high-powered executives, businessmen and ladies with a penchant for new technology. Together with it's high resolution small but very attractive Monitor, stand and sleek looks, it added an air. of absolute compactness.It was in a sense the first of those 'Laptops' that the computer world was showing a frenzy about. It still is, in my opinion the best designed, compact and sleek unit ever to grace one's desk, and with the immense proliferation of Apple programs, a very powerful tool to own and use.

5. APPLE IIgs. Introduced in Late-1986 is a completely redesigned computer, with 4 Banks of 64k each, gives a total accessible memory of 256k.

It combines all the features of the IIe, the IIc plus many more. These are too many to list here and will be a later subject. It is capable of 'imitating' the II series. This is referred to as running in 'Emulation' mode. Hence all programs written for the II series can be run on the IIgs.

The IIgs, with its accessible memory expandable to a total of 16k bytes, it's Hi-Resolution Graphics, it's superb sound reproduction qualities, it's faster speed and many more features, has become the 'jewel' in the Apple II's crown. It is very popular with computer enthusiast's, game fanatics, medium sized businesses, schools, colleges and programmers. Commerce and Industries, larger corporations Banking and Insurance have opted out for it's cousin the APPLE MACINTOSH or the IBM types. Nevertheless, the IIgs, enjoys and will keep on enjoying a vast following of dedicated Apple II lovers both here in Europe and the Americas. Almost all of the 4 million of Apple IIgs users will swear to you, with their hands on their heart, that there is no computer, invented so far, that could touch it. I, for myself am one of these. Once you have used the IIgs, once you have been 'bitten' by the GS bug, there is no greater pleasure than looking at that screen, punching those almost life-like keys, that seem to play a tune in the very recesses of your mind and soul. Take my advice, try out one for yourself.

**ENHANCED MODELS of the APPLE II series.**

**Apple II & II Plus**

There were various revisions in the motherboards of these models. Almost all were electronic enhancements and did not alter the program executions or displays. Apple Corporation did not produce any noticeable

'add ons'.

Various other companies produced a plethora of add ons, such as Lower-case letters, faster program operations, more disk drives accessed than the conventional two, add on memories and ready programmed ROM cards or plug ins. None that made a significant difference to the actual basic architecture of the computer.

**Apple IIe.**

In 1984 a significant enhancement was offered to IIe owners.

'Apple IIe Enhancement Kit' gave the IIe compatibility with the IIc. Software with pull-down menus, pictorial representations, known as mouse characters, smoother graphics, and the ability to carry on working on a document while the printer was printing another, were some of the added-on features on the IIe, as a result of this enhancement. Speed too was improved. There was a more improved Mini-Assembler, program lines could be typed in upper or lower-case, so if you forgot to press CAPS LOCK you would not end up with a SYNTAX ERROR message.

Upon powering up, the Enhanced version should display Apple IIe instead of Apple ] [.

The Enhancement entailed changing the Microprocessor, the three ROM chips:

Microprocessor 6502 to 65C02 370-6502 to 338-6503
Character Generator ROM 342-0133 to 342-0265
Monitor ROM (EF) 342-0134 to 342-0303
Monitor ROM (CD) 342-0135 to 342-0304

Of course this was all right if your IIe originated in the good old USA but the numbers did not tally with those manufactured here in Europe.

This led to a great deal of confusion, specially when enhanced ROMs appeared from other sources than Apple itself. This confusion was mainly on the European Character Generator ROM.

So here is the United Kingdom lineup:

Microprocessor 6502 to 65C02 370-6502 to (Any type) 65C02
Character Generator ROM 341-0160-A to 341-0273-A
Monitor ROM (EF) 341-0134 to 342-0303
Monitor ROM (CD) 341-0135 to 342-0304

The UK motherboard is laid out much differently than the US type. One has to be careful in changing the ROMS. At least they are marked clearly.

The Character Generator ROM is marked VIDEO ROM and lies next to the EF ROM separated by the LS374 IC. All three original ROMS carry the prefix 341 and not 342 as suggested in the manual. Two of the new ROMS will show this 342 but the VIDEO ROM for UK enhanced IIe will show 341-0273-A.

**Apple IIc**

There were no DIY enhancements on this model, but instead, Apple released two further newer and improved versions of the IIc.

1. An Improved version, capable of running the 3.5" UniDisk.

Launched in spring of 1986, carried a ROM of 32k (double the size) and a Protocol Converter which supported mass storage devices.The Protocol Converter was configured as a Smartport, similar to the IIgs, so that a daisy-chain configuration was made possible under ProDOS. This meant that if a Hard disk and a UniDisk were connected, one could still use the 5.25" floppy, as long as it was the furthest device in the chain. It has 4 new serial-port commands, two new system monitor commands, a mini-assembler, an improved interrupt handler, built-in diagnostics and new external drive startup procedures.

2. A memory expansion version. Launched in September '86 with a platinum keyboard. Internally, the 16 8k chips, which made up the Main and Auxiliary RAM, were replaced by 4 32k RAM chips along the right-hand side of the motherboard; a memory extension internal connector, supporting an Apple's own 1 Meg RAM card or AE's Z-RAM Ultra. The Apple Card is accessed as a RAM Disk and not as an extension of the IIc's main memory, and hence has to be formatted first. You can only exceed the 128k ceiling with the Z-RAM Ultra, MultiRAM CX or a C'CARD from other than Apple.

3. A revision of the above.

4. IIc Plus. Released in November '88, with 128k memory, which can be expanded. An internal 3.5" disk drive, a 4 megahertz 65C02 processor, making it faster than the IIgs, a serial printer port, mouse/joystick, modem, an RGB monitor output and an internal power supply, made this a very desirable unit indeed.

This then is the full tour of the Apple II series of computers.

At the time of writing this, there is news that Apple is about to release a new improved version of the IIgs. Details of this are scanty but suffice it to say that Apple lovers all over the world will not be disappointed.

**Identifying Models.**

To identify which type of machine you have, power up, enter the monitor and examine the memory location at $FBBF and compare with table below.

| | |
|---|---|
| Apple II | $2F |
| Apple II Plus | $EA |
| Apple IIe | $C1 |
| Apple IIe enhanced | $00 |
| Apple IIc | $FF |
| Apple IIc 3.5 ROM | $00 |
| Apple IIc Mem.Exp. | $03 |
| Apple IIc Mem.Exp.Rev | $04 |
| Apple IIc Plus | $05 |

**Alan Remu**


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# Padmede Accounting Software

## Alan Willey takes a look at this venerable but still useful package

You may have noticed a recent advertisement in the Apple 2000 magazine for Padmede accounting software at silly prices - £15 per module.

Padmede stopped producing Apple software and went over to the CP/M operating system when it started to become apparent that Apple were so enamoured of the Mac that they were prepared to allow the Apple II range to sink into oblivion (outside the USA at least). Fortunately, the Apple II has steadfastly refused to go away. Having recently explored the IBM environment via the PC Transporter system, I must confess to having found most IBM accounting software to be slow, cumbersome and about as user friendly as a river full of alligators. I have tried several IBM integrated packages including Open Access One Entry, Logotron Eight-in-One and Migent Ability Plus and can say quite categorically that AppleWorks 3 runs rings around all of them for speed and accessibility.

So, how about this Padmede software which is now so old that, although the programs have been upgraded ("Muffined") to DOS 3.3, the data discs still run under DOS 3.2?

**Padmede Incomplete Records Accounting System**

The program with which I have most experience is the Padmede Incomplete Records Accounting System ("PIRAS"). I bought this some years ago for nearly £300, and am so pleased with it that I bought a £15 back-up copy from Apple 2000 recently. It is copy protected, but if you have an early copy of Copy II+ (which supports DOS 3.2) you can easily copy the data discs and, by entering parameter 10=96, you can use the bit copier to make back-ups of the program disc.

PIRAS is a batch entry Nominal (or General) Ledger system. It is useful for accountants (like myself) who have to prepare accounts for clients from a shoebox full of bills, bank statements etc. and also for businessmen who have an analysed cash book (supported by bank statements etc.) and want to take their business records to final Trial Balance Stage. The advantage of the batch entry system is that the Nominal Ledger will always balance as the system will not allow you to close off a batch until that batch is in balance (in technical terms - the total debits are equal to the total credits).

A useful facility is that the opening bank balance can be entered into the system and entries made directly from the bank statements. The system keeps a running record of the bank balance and will not allow a batch to be closed off until the closing bank balance is agreed.

After all batches have been entered (or more often if required) the entries can be "chained" into one long file for printing out Nominal Ledger accounts, Final Accounts or Previous Year Comparisons. This process can take some time, so it is recommended that it is done in one process at the end of all the entries.

The documentation with "PIRAS" is very good, taking the new user on a step by step tour of the system. A full list of all the nominal ledger accounts - which can be customised to suit the individual user - appears in the instructions and will adequately cover most businesses. A sample data disc is supplied which, together with the manual, is most helpful in understanding the method of working.

One confusing point concerns the printer options menu, which will be found under Main Menu Option 2 - Run Utilities, item 5 "Amend System Parameters". The printer codes under this heading only go as far as No.4. If - as most people have nowadays - you have your printer attached to slot 1 or the equivalent GS port, you should enter "7" here. This is not documented, but directs printer output to slot 1 without any other instructions to muddy the water (you know, the old "Control I 80N" nonsense).

A word now about speed of operation. At one stage I did start to feel that PIRAS was a little bit sluggish, but then several things happened.

Fist of all, I tried IBM software and found that, comparatively, PIRAS written in basic with data discs running under DOS 3.2 was reasonably fast.

In my office I have both an Apple IIe and an Apple IIgs. I then bought a ZipChip for the former and a Transwarp GS for the latter. Anyone who uses either system for business purposes and has doubts about spending the money on speed enhancing devices should read on.

One of the slowest jobs performed by the PIRAS system is to close off a year's accounts and transfer the account totals to a comparisons file. On an Apple IIe running at standard speed, this takes over half an hour. On a Apple IIe with a ZipChip fitted, it takes about 11 minutes. On an Apple IIgs with a Transwarp card fitted the same job takes just over 8 minutes!

In general, my experience as an accountant dealing with a large number of small businesses has been that a bookkeeping system based on a conventional cashbook is actually much faster and easier to use than any integrated computerised accounting system that I have tried. Bear in mind that I am talking here about sole traders, husband and wife partnerships etc. with a turnover of, say, £40000 or less. Larger concerns will find the better control offered by a full sales, purchase and nominal ledger system to be useful.

For my own business, I use a conventional handwritten cashbook, the Padmede Sales Ledger (also available from Apple 2000 for £15 and discussed below) and the PIRAS system which I use as a Nominal Ledger. I have ended up with this system after using several integrated accounting systems all of which contained very serious shortcomings. The impression I have been given is that the programs have been written by people with only a theoretical rather than practical accounting knowledge. Accountancy is like driving where you learn a series of "tricks" to enable you to pass

the test, but find that you don't really learn to drive properly until you get out on the road.

This program is remarkable value for money. Padmede were taken over some years ago by a company called Quest and they, in turn, have been absorbed by IT Marketing. IT Marketing have produced an updated version of PIRAS running on the IBM PC and compatibles. Admittedly it runs faster that PIRAS because it takes advantage of the increased memory available nowadays. It does, however, cost over £300 and will not actually do anything much more than PIRAS will do. Need I say more?

**Padmede Sales Ledger**

Most of the comments below concerning the Padmede Sales Ledger System (PSLS) apply equally to the Purchase Ledger System which is very similar in operation.

Fist of all, there is one serious pitfall for the unwary (what do you expect for £15 anyway?). The system is old and is set up for the days when Apple II's

used to have two 5.25" disc controllers, each handling one drive only, in slots 5 and 6. To make the system run with one disc controller card in slot 6 controlling two drives it is necessary to make use of some form of sector editor capable of dealing with DOS 3.2. I used an early version of Copy II+ and amended track $15 sector $9 from "S5 D1" to "S6 D2". Anyone who buys this program from Apple 2000 can ask Irene to pass it on to me (she only lives about a mile away) and I can "zap" it in a few minutes before it is passed on to you.

The Sales Ledger program enables the user to maintain a full database of all his customers and print out an alphabetical list when required. Postings can be made from invoices and credit notes. Facilities are available to post cash items where no invoice has been raised, adjustments (journal entries) and cash and discount adjustments or reversals.

Accounts can be viewed on the screen, and I found the facilities better than many more modern programs. Statements can be printed on plain paper and provision is made for entering the user's name and address and also a standard message on the statement (to state payment terms etc.).

A very useful facility is the end of month summary showing the postings to the Nominal Ledger using the standard Padmede Nominal codes. One system I have used in the past is the Ormbeta Compact Accounts System. To reinforce my earlier comments, I find that it takes me less time to manually enter the Sales Ledger Summary from PSLS to PIRAS than it used to take the Ormbeta system to do a "Nominal update from Sales" - and Ormbeta Compact was about the fastest small business integrated system I have tried!

The documentation is, again, very good. I think it is good enough to enable someone without specialised bookkeeping knowledge to cope. However, if anyone runs into trouble with the Padmede Incomplete Records, Purchase or Sales

Ledger programs, it is quite likely that I will be able to help (you can contact me on 051-928 1538). Certainly you will not find any software on any computer at anything like this price that will perform as well.

**Other Padmede Programs**

The other modules available include a Purchase Ledger,Invoicing (with bridging facilities to the Sales Ledger system), Job Costing and Estimating.

The Purchase Ledger is very similar to the Sales Ledger reviewed above.

I have not tried the other programs, but have glanced through the manuals and would expect them to be of a similar standard to the above and equally good value for money.

**Alan Willey**

# AppleWorks 3.0 Bugs

## Stowe Keller describes those he has found so far ....

Here are two bugs I've recently found in AppleWorks 3.0. One is a minor annoyance and the other is fairly serious because it inevitably leads to either hanging the computer or crashing into the monitor, which might result in the loss of desktop files.

The first bug is a minor one which does not appear to be fatal in any way, but it's an annoyance which can be easily overcome by the user. Start up AWks 3.0, load an AWP file which starts with the printer options Right Margin 0.0 and Left Margin 0.0. Use OA-C to perform a Copy "To clipboard", then start copying from the start of the file down a few lines and stop highlighting in the middle of a line of text by pressing return once. The text line is now broken into two lines at the point where you stopped highlighting; however, a carriage return has NOT been inserted at that point, as OA-Zoom will show. Moving the cursor through that point will cause the cursor to immediately jump from one line to the next. Fortunately, it is possible to type a space or other character at the point of the line break and then delete the new character which you just typed, which will merge the two lines back into one.

The second bug is much nastier and in my experience always leads to either hanging the system or crashing it into the monitor, so be sure to backup your hard disk or disconnect it and any other important disks while trying to duplicate this problem.

Start AppleWorks 3.0 and load a file from a 3.5" floppy disk and then eject the disk, leaving the 3.5" drive empty. From AWks 3.0 Main Menu, choose 'Save desktop files to disk', select the file, choose 'First change to a different disk or directory' and press Return (NOT OA-Return!). Awks 3.0 will access the 3.5" drive, discover the drive is empty, and gives an error message and asking you what to do next. Choose 'Try a different location', then choose 'ProDOS directory' by pressing OA-Return this time. Type in a pathname (I specified a subdirectory on my hard disk), choose 'Save file on current disk', and AWks will go through the motions of a successful save – the user does not yet have any clue that something has gone wrong. However, what actually happens is that the file on the desktop has had its filename and other information trashed, apparently just prior to or during the save process, with the result that the file saved to disk has the name 'AWIEMP.000000' (ie, it never got renamed), and the file on the desktop is now so scrambled that any attempt to access it or remove it will either hang or crash the system. Using something like OA-Q for Quickchange will show that the name of the document is gone (usually replaced with all blanks); selecting that file will hang the system, risking the loss of any other desktop files which may not have been saved. Trying to Quit from AWks 3.0 will not work either, since AWks first tries to remove this file (and all other files) from the desktop.

The first bug occurs the same way on my Apple //GS and my //e system. In the case of the second bug, I don't have a hard disk on my //e system, so I tried specifying the pathname of my 1 Meg Slinky RAM disk (which I made certain had several times enough room to store the file even with SYS.DESKTOP present), and AWks 3.0 hung at the point where it says "Carefully saving this file. You can press Escape to cancel the save".

Both problems have been seen to occur on a virgin copy of AppleWorks 3.0, on AWks 3.0 modified by AW Patcher 1.4, and on AWks 3.0 modified with AW Patcher 1.4 and Ultramacros 3.1 and the Timeout Desktools utilities. Removing ALL files in the //GS Desk.Accs folder did not make these problems go away, and these problems have been seen to occur with a 2.25 Meg RAM system as well as 3.25 Meg RAM //GS, so memory does not seem to be a factor. My main system is a an Apple //GS ROM 01, (currently) 3.25 Meg RAM (Cirtech GS-RAM 8 card), 7 Mhz Transwarp GS in slot 3, GS/OS System 5.0.2, real Apple 3.5" drive connected to back port (maps into slot 5), real Apple Disk ][ controller in slot 6 attached to two 5.25" drives, Apple SCSI card Rev C in slot 7 attached to Chinook 40 Meg Hard drive. I often use Don Elton's ECP8 command shell for ProDOS8 to launch AWks 3.0, but both these problems were seen to occur when launching directly from the GS/OS Finder. The system RAM tests out fine and the hard disk checks out fine under Glen Bredon's ProSel utilities. My second system is an enhanced Apple //e with 128K RAM, Transwarp with 65802, 1 Meg Slinky RAM disk, ProDOS 1.5, two Apple 5.25" drives in slot 6, one UDC with 3.5" floppy drives in slot 5, Apple Mouse in slot 4, and Slotbuster II multi-function card in slot 1.

**Stowe Keller CIS: [71540,725]**

# Back to The Old Apple /// Patch

## John Jeppson gives us a further insight into the Apple /// Reprinted from SoftTalk Vol. 4 Feb 84

Apple recently released version 1.1 of Apple III Pascal. The new version has a number of significant improvements and enhancements, one of which is a special utility program to change the Pascal system volume designation. The system volume is the disk that contains SYSTEM.PASCAL and SYSTEM.MISCINFO in its root directory.

Formerly, in version 1.0, the Pascal floppy disk that was used to boot the system was automatically designated the system volume. That particular disk had to remain in Apple III's built-in drive; if you removed it, Pascal soon demanded its return. In practice, this constant swapping of disks effectively rendered the built-in floppy useless for any other purpose. Most programmers simply gave up and bought an extra drive.

Pascal 1.1 solves that problem. Version 1.1 comes with a program called PMOVE.CODE which allows you to assign the system volume to any block device you own. Normally you will want to designate a hard disk such as ProFile. It is desirable, of course, to have all the system files on hard disk because execution is faster and all the files are immediately available when needed.

The only drawback is that most system files -all those with the prefix "SYSTEM." and a few others- must reside within the hard disk's root directory, where they are constantly in the way. There is, in fact, scarcely ever any need to look at the names of system files. You already know where they are located, and they are accessed only by single-key commands within the Pascal system. But every time you catalog the hard disk directory, there they are, forcing you to hunt around among all those extra file names to find the files you seek. The accompanying patch program permits you to move all system files into a subdirectory where they remain bundled together, out of the way. It is similar to a patch for version 1.0 published in the February 1983 Softalk, but much simpler. The previous patch also had to reassign the system volume, a task now accomplished by PMOVE.CODE. In version 1.1, moving the files into a subdirectory is easy -so easy, in fact, that it's surprising that Apple did not include this option in PMOVE.CODE.

The patch changes file name strings in a number of Pascal system files from "SYSTEM.XXXXX" to "SYSTEM/XXXXX", thereby tricking Pascal into looking for its system files in the subdirectory "SYSTEM".

The accompanying table summarises the locations involved.

Locations changed from "." to "/":

| File | Block | Bytes |
|---|---|---|
| PASCAL | 25 | 188 |
| | 26 | 218, 248, 278, 306, 332 |
| | 27 | 218, 250 |
| | 35 | 216 |
| | 44 | 58 |
| FILER | 50 | 316 |
| COMPILER | 53 | 104 |
| LINKER | 4 | 500 |
| | 5 | 122 |
| LIBRARY.CODE | 1 | 446 |
| | 6 | 204 |
| | 7 | 204 |
| | 8 | 204 |
| LIBMAP.CODE | 5 | 254 |
| SETUP.CODE | 6 | 504 |
| SOS.INTERP (in strings beginning at) | 6 | 359, 394, 429 |

These changes do NOT affect the various work files. Pascal will still place all work files in the hard disk root directory. Furthermore, the system volume is not reassigned to the subdirectory. It remains the root directory of your hard disk, but that root directory will contain only a single listing for the subdirectory named SYSTEM. Finally, as a small bonus, the program changes the error message displayed when the hard disk is not yet on-line during boot.

**Instructions**

The first step is to execute the program PMOVE.CODE following the instructions contained in that program. PMOVE.CODE will modify the Pascal boot file SOS.INTERP to reassign the Pascal system volume to the hard disk. It's a good idea, at this point, to place all Pascal system files temporarily into the hard disk root directory and to confirm that the system boots and runs correctly.

Next, make a subdirectory called ".name/SYSTEM", where ".name" is the SOS device name of your hard disk, and copy all Pascal system files (except SOS files) into this subdirectory. Remove the prefix "SYSTEM." from all file names that contain it, with the exception of SYSTEM.SYNTAX. Leave SYSTEM.SYNTAX and the remaining file names unchanged. It's okay to have both of the following files in the subdirectory at the same time. Pascal will not confuse them:

file LIBRARY (derived from SYSTEM.LIBRARY)
file LIBRARY.CODE
(a program that always had that name)

The directory structure should now appear:

```
/PROFILE    (volume name of hard disk)
SYSTEM      (subdirectory name)
    PASCAL      (files in subdirectory)
    MISCINFO
    EDITOR
    FILER
    LIBRARY
SYSTEM.SYNTAX
ERRORS.6502
```

and so on.

Upon running this patch program, you'll be asked for the same information required by Apple's program PMOVE.CODE: the SOS device name of your hard disk (the new system volume), and the SOS device name of the disk containing SOS.INTERP (already modified by PMOVE.CODE). The patch makes a second modification to SOS.INTERP and also modifies the following system files: PASCAL, FILER, COMPILER, LINKER, LIBRARY.CODE, LIBMAP.CODE, and SETUP.CODE. All these files (except SOS.INTERP) must be present in the System subdirectory.

After successful execution of this program, you may reboot your Apple III with a Pascal first-stage boot disk containing SOS.KERNEL, SOS.DRIVER, and the twice-modified SOS.INTERP. Pascal will look for its system files in the subdirectory. You may remove the old, unmodified files from the hard disk's root directory.

```
(*          Patch Apple III Pascal Version 1.1
    Alters Pascal System Files for Use in a
Subdirectory *)

program patch;     (* must be compiled under
Pascal v 1.1 *)
uses chainstuff;
var
      buf: packed array [0..511] of 0..255;
      old Prefix, source, devname: string;
      prefixSet: boolean;

procedure getinfo;
      var
            i: integer
            subdir: string
      begin
            writeln (chr (28));
            writeln;
            writeln ('Pascal version 1.1 - Move
System Files to Subdirectory');
            writeln;
            writeln;
            write ('SOS device name assigned to
hard disk drive: ');
            readln (devname);
            for i:= 1 to length (devname) do   (*
to upper case *)
               if devname[i] in ['a'..'z'] then
                  devname[i]:= chr (ord
(devname[i]) - 32);
            writeln;
            write ('SOS device name of diskette
containing SOS.INTERP file: ');
            readln (source);
            source:= concat (source,'/
SOS.INTERP');
            writeln;
            subdir:= concat (devname,'/SYSTEM);
            prefixSet:= setprefix (subdir);
            if not prefixSet then
              begin
                writeln ('Subdirectory ',subdir,'
not found');
                exit (program);
              end;
            end; (* getinfo*)

procedure getblock (s:string; blk:integer);
      var
            iofile: file;
            count: integer;
      begin
            writeln ('altering block ', blk:2, '
in ', s);
            (*$iocheck- *)
            reset (iofile,s);
            (*$iocheck+ *);
            if ioresult <> 0 then
              begin
                writeln (chr(7), 'Unable to find
',devname,'/SYSTEM/',s)
                exit (program);
              end;
            fillchar (buf,sizeof(buf),0);
            count:= blockread (iofile, buf, 1,
blk);
            close (iofile);
      end;

procedure chg (n:integer);
      begin
            buf[n]:= ord('/');
      end;

procedure wrtblock (s:string; blk: integer);
      var
            iofile: file;
```


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**Hailsham, E Sussex, BN27 1HE**
**Telephone : 0323 - 845898**

```
        count: integer;
    begin
        reset (iofile, s);
        count:= blockwrite (iofile, buf, 1,
blk);
        close (iofile);
    end;

procedure interp;
    var
        i: integer;
        tempname, message, ctrls1, ctrls2:
string;
    begin
        getblock (source, 6);
        tempname:= concat (devname, '/SYSTEM/
PASCAL');
        buf[359]:= length (tempname);
        for i:= 1 to length (tempname) do
          buf[359+i]:= ord (tempname[i]);
        tempname:= concat (devname,'/SYSTEM/
MISCINFO');
        buf[394]:= length (tempname);
        for i:= 1 to length (tempname) do
          buf[394+i]:= ord (tempname[i]);
        (* create new error message - includes
controls *)
        ctrls1:= 'xxxx';    (* move cursor to
0,23 and beep *)
        ctrls1[1]:= chr(26);
        ctrls1[2]:= chr(0);
        ctrls1[3]:= chr(23);
        ctrls1[4]:= chr(7);
        ctrls2:= 'x';  (* clear to end of line
*)
        ctrls2[1]:= chr(31);
        message:= concat (ctrls1, 'Press
RETURN when ''',devname,''' is on line ',
ctrls2);
        buf[429]:= length (message);
        for i:= 1 to length (message) do
          buf[429+i]:= ord (message[i]);
        wrtblock (source, 6);
    end;  (* interp *)

procedure pascal;
    begin
        getblock ('PASCAL', 25);
        chg (188);
        wrtblock ('PASCAL', 25);
        getblock ('PASCAL', 26);
        chg (218);
        chg (248);
        chg (278);
        chg (306);
        chg (332);
        wrtblock ('PASCAL', 26);
        getblock ('PASCAL', 27);
        chg (218);
        chg (250);
        wrtblock ('PASCAL', 27);
        getblock ('PASCAL', 35);
        chg (216);
        wrtblock ('PASCAL', 35);
        getblock ('PASCAL', 44);
        chg (58);
        wrtblock ('PASCAL', 44);
    end; (* pascal *)

procedure others;
    begin
        getblock ('FILER', 50);
        chg (316);
        wrtblock ('FILER', 50);
        getblock ('COMPILER', 53);
        chg (104);
        wrtblock ('COMPILER', 53);
        getblock ('LINKER', 4);
        chg (500);
        wrtblock ('LINKER', 4);
        getblock ('LINKER', 5);
        chg (122);
        wrtblock ('LINKER', 5);
        getblock ('LIBRARY.CODE', 1);
        chg (446);
        wrtblock ('LIBRARY.CODE', 1);
        getblock ('LIBRARY.CODE', 6);
        chg (204);
        wrtblock ('LIBRARY.CODE', 6);
        getblock ('LIBRARY.CODE', 7);
        chg (204);
        wrtblock ('LIBRARY.CODE', 7);
        getblock ('LIBRARY.CODE', 8);
        chg (204);
        wrtblock ('LIBRARY.CODE', 8);
        getblock ('LIBMAP.CODE', 5);
        chg (254);
        wrtblock ('LIBMAP.CODE', 5);
        getblock ('SETUP.CODE', 6);
        chg (504);
        wrtblock ('SETUP.CODE', 6);
    end;  (* others *)

begin  (* main program *)
    getprefix (oldPrefix);
    getinfo;
    interp;
    pascal;
    others;
    prefixSet:= setprefix (oldPrefix);
    writeln;
    writeln ('SUCCESSFULLY COMPLETED');
end.
```

# Hotline News

I still get a lot of enquiries about Applesoft programs that don't execute disk commands properly after sending output to the printer or using the 80 column screen. Even Apple Computer manuals contain such programs which contain lines like :-

```
12345 PR# 1
```

So what's wrong with that? Well whilst PR# 1 works satisfactorily from the keyboard it DISCONNECTS DOS or ProDOS when used in a running program; PR# 1 etc. were around before DOS was available and simply move the output hooks to point to the device, in this case, in slot 1. Now DOS and ProDOS when they bootup re-direct these hooks to point to DOS or ProDOS so that they can communicate with Applesoft, so if you want to use your printer DOS or ProDOS would like to move the hooks for you so that it can still maintain it's communication with Applesoft. Therefore in a program you should use the DOS or ProDOS commands, some examples of which are listed below :-

```
12345 PRINT CHR$(4) "PR#1"
12345 PRINT CHR$(4) "PR#3"
12345 PRINT CHR$(4) "IN#4"
```

These maintain the hooks pointing into DOS or ProDOS whilst still sending or receiving data to or from the device in the slot you have chosen. In some older programs you may see the construct :-

```
12345 PR# 1
12346 CALL 1002
```

The CALL 1002 simply re-connects DOS or ProDOS after the PR# 1 etc. have disconnected it.

**Dave Ward**

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# Game Set and Match

## We search for Crystals, Buckle our Swashes and play a little Solitaire in these three games for the IIgs

### Crystal Quest

Crystal Quest is a fast-action game where you pilot a small oval ship around the screen, using the mouse, picking up small flashing diamond crystals. When you have picked them all up a gateway at the bottom centre of the screen opens up and when you pass through it you may if you wish and go to the next wave (screen). The first screen is relatively simple with only a few crystals randomly spaced. As you are attempting to pick up the crystals critters randomly enter the screen from two portals at the centre of the two sides. To make life still more difficult mines are placed in random positions around the screen and increase in number the higher the wave. On the screen are numbers up to 10000 and small red bombs. Collecting the numbers adds to your score, crystals score 200 points each and the red bombs are useful if the screen gets too cluttered up with critters; these bombs completely clear all the critters from the screen when you press the space-bar. When you have completed a wave you can score a bonus of 500 points per second if you do it faster than the assigned time. You have 10 seconds for the first wave, 15 seconds for the second wave .... For instance I often do the first wave in 6 seconds and so score a bonus of 2000 points. You can set the speed of the mouse on the control panel and whilst many users may prefer the slow speed mouse I have always found it better to use the high speed mouse option!

**Those D*** Critters**

There are 12 types of critters, some just wander about the screen other shoot slow or fast bullets at you another drops mines all over the place and others follow you whilst one shoots laser beams at you and one splits in a shower of shrapnel if you fire at it. Touch a critter or any of the portals or a mine and you die. You can fire at critters by pressing the mouse button and the bullets fly in the direction you are moving. You have an unlimited number of rounds although there can only be 5 bullets on the screen at once. Most critters die when you hit them but one, a red slime, takes many shots before it dies. Occasionally, at random, big white diamond shaped crystals appear from the critters portals and these move randomly around the screen. If you collide with one of these you can score up to 50000 points! All this excellent graphics is accompanied by great digitised sound.

**Wave Yourself Goodbye**

Each successive wave becomes more difficult, there are more critters, minesand the action becomes faster. By wave 26 the gate starts to move along the base of the screen and this movement appears to increase in higher waves. By wave 23 you've seen all the critters and from then on you get more in combination and the game just speeds up. There doesn't appear to be any limit to the number of levels but I've only managed wave 44 with a score of 5 million. It looks like wave 99 is the axmum and you can't have more that 99 ships!

**Help!!**

A full description of all the critters and how to play the game is provided in 'help screens'. The sixteen best scores are stored on disk and the current 16 are also stored whilst the game is in memory.

**The Crystal Ancestory**

Crystal Quest was first written for the Macintosh and it's a great game on that machine but believe it or not the game on the Apple IIgs is faster and has better graphics colour and sound. Some commented that the slow speed on a

Macintosh II would make it unworkable on a mere 2.8mhz Apple IIgs! One of the best features of the program is that the disk is not copy-protected and is easily transferred to a hard disk. So after hours of pounding the keyboard it is easy to launch Crystal Quest and relax for half an hour or so.

**It's The Best!**

Crystal Quest has got to be one of the best fast action games for the Apple IIgs; it's sound and graphics show off the capability of the machine and it is easy to use as there is no copy-protection. Bill Heineman who programmed the Apple IIgs version deserves praise for and excellent implementation.

**Grateful Thanks**

We would like to thank Jenny Green of MGA Softcat for supplying the Crystal Quest game for this review.

Crystal Quest was devised by Patrick Buckland and published by Cassady and Green Inc.

**Dave Ward**

*info*

*Product* : Crystal Quest
*Publisher* : Cassady & Green
*Available from* :
MGA SoftCat
41 Cinque Port Street
Rye
East Sussex TN31 7AD
0797-226501
*Price* : £34.95 WYSIWYP

*Value* : ★★★★★
*Performance* : ★★★★★
*Documentation* : ★★★★

### Solitaire Royale

Anyone who likes playing cards will like this collection of games. There are 8 adult games and 3 children's games, the software comes on a 3.5 disk packed in a box with a good instruction book and an addendum for the GS version.

On booting the Solitaire Royal disk on my system, with a hard disk, half way through booting I got the the message:

> SCSI device requires a driver.
> Please install SCSI driver on
> boot disk and re-boot System.

Pressing return continues the booting.(why don't they include the SCSI driver on the disk ?) The screen then changes to the title picture of a large playing card, while the game is loaded in. The game is not copy protected and instructions for installing on a hard disk are supplied. Once installed on the hard disk you lose the title picture. If your IIGS has 1 megabyte of RAM or more you have a choice of five different card backs to choose from, each with its own different "face". Sound effects are also available with a 1 megabyte of RAM. Machines with 512K of RAM will have only one card back and "face" available and the sound will be disabled. The desktop colour can also be changed with three scroll bars to alter the red, green, and blue component of

the colours.

The adult games are:

| | |
|---|---|
| Pyramid | Golf |
| Klondike | Canfield |
| Corners | Calculation |
| Reno | 3 Shuffles & a Draw |

Children's games:
Concentration Pairs The wish

**Playing the games**

On the menu bar there is the Apple menu which has the option to tell you how to play the game that you are running, the File menu for saving or loading a saved game, the Start game menu to choose a game or tournament where two or more players can play, the Help menu to start game over again, back up a move, peek into a pile (good for cheating), help about a pile. The Settings menu has turn off messages, turn off fast deal, turn off sound effects, have a left handed cursor (what for I don't know) select a deck, clear scores and change desktop colours. Once a game is selected you can hear the sound of the cards as they are shuffled and dealt on the screen. The card or column is then selected by using the mouse. If the move is not valid a small box appears in the center of the screen to tell you so. To speed up the game I had the sound effects switched off, the messages switched off and fast deal switched on, this improved the game.

These games seem a little slow to me. The help screens take time to display and the cards take time to redraw. In the game of Klondike where 7 columns of cards are displayed, when more than 8 cards are placed in one column then the 9th card starts at the top of the column covering the cards underneath. For all the little extras that Solitaire Royale has I still prefer the ShareWare Solitaire games on the AppleXtras disk from Apple2000.

Phone Bidmuthin for the current price.

**Les Roberts**

*info*

*Product* : Solitaire Royale
*Publisher* : Spectrum HoloByte
*Available from* :
Bidmuthin Technologies
214 Kenton Road
Harrow
Middlesex HA3 8BT
01-907-8516
*Price* : P.O.A.

*Value* :
*Performance* :
*Documentation* :

## Pirates GS

Pirates in an interactive adventure program from Microprose, producers of the Silent Service (submarine sim.) program. Pirates follows in the same format of high quality programming and background information. You are a swashbuckling pirate, rampaging the Caribbean at the height of the privateering period eg. 1560 - 1700.

**Requirements**

IIGS requirements are 256K, 3.5 drive and optional colour screen. Joystick, mouse or keyboard can be used to operate the program. Software protection comes in two forms, the disk is protected, and additional protection comes from a menu window which asks for times of either the Treasure Fleet or Silver Train. Incorrect answers produce sad endings or lowly beginnings! The manual has the info...

**The Pirates Box**

The usual box package has the program disc, manual, Captain's broadsheet, map & registration form come backup request card. The manual gives you background information on the ships, towns, growth of towns and trading goods and much more. The Captains broadsheet allows the brave to jump in and do battle straight away. The map is of the Caribbean, well presented, covering the area from the Florida coast to the northern coast of Terra Firma (South America). Longitude and Latitude are given to find out where you are if you get lost! Astrolabe freaks ...patience! I'm impressed with the presentation of the paper work; the historical background has nice snippets such as.. the origin of the word "Buccaneer" comes from the way privateers cured their meat over open fires.

**Starting a New Game**

The game starts with a choice of New Career, continue saved game and command famous expedition. The first follows with a historical period choice menu, ranging in difficulty. The second is obvious, but a necessary feature. Third allows you to take on the management of one of six famous expeditions ranging from John Hawkins squadron of 1569 to Baron de Pointis last expedition of 1697. Henry Morgan and Francis Drake are amongst the other choices. As you sail about plundering your crew sights shipping to attack, within this set of menu windows, if you wish, you can change ships to one you have captured, and thus your flagship could be a "fast galleon".

**Pirate Menus**

From menus that choose your nationality, name, difficulty level ie. apprentice to swashbuckler, special abilities (would you believe wit & charm amongst others!) you begin the

game proper. In charge of your crew, you hope, you set sail into the Caribbean with good wishes and orders from the Governor of your home port to attack and plunder shipping and ports! Do I have to say it! "Aaah haa Jim Lad"! Screens are super high res. showing toothless pirates in taverns, obligatory wenches, to the Governors daughter, and a smile from the Governor when you do well. Animation of the graphics is spread well through port scenes. The menus that you make your choices from are set out as coloured windows which layer one on top of the other as you choose. Sailing screens display you ship moving over the sea, this being the whole screen. Clouds float by showing the wind direction, this is necessary as you have to "sail" your ship, pinnace to galleons, in the right "quarter" for that ship. Attacking ships needs sailing skill as well as cannon power. This display is handled well showing the ships at battle, cannon fire and status of both adversaries. Sound for the program has harpsichord music for intros etc. good sound effects for the cannon fire & ships being hit, sword fighting on ship and on land. A very good program for young apprentices to "old" swashbucklers, well documented with good sound and graphics, certainly recommended for the "adventurous".

**Adrian Campbell-Burt**

*info*

*Product* : Pirates GS
*Publisher* : MicroProse
*Available from* :
MGA SoftCat
41 Cinque Port Street
Rye
East Sussex TN31 7AD
0797-226501
*Price* : £34.95 WYSIWYP

*Value* :
*Performance* :
*Documentation* :

# IIgs Midi Conference

## We reprint the text of the recent Apple II Music and Sound Conference held on America Online

Apple II Music & Sound Conference
February 21, 1990 10:00 ET
Subject: The new MIDI/synth/sequencer tool for the GS
Guest: Mark Cecys, Sound Engineer for Apple Computer
Forum Leader: Tim Barwick (AFL TimB)

**AFL TimB** Welcome to the weekly convergence of the Apple II Music and Sound Forum. I have had a couple of amazing events happen to me over the last week and I'm afraid I'm gonna make you listen to both of them! First on Friday I received the most recent version of Soundsmith (0.9 to be exact). It has everything promised (well most of it) but as I left for NY State this weekend I didn't have much time to really check it out. On Monday, when I returned home I found a really nice package on my doorstep. Yup, Apple's highly touted MIDI Synth tool was there. What can I say. The sound is breathtaking!

**AFL TimB** However, tonight's chat is a PROTOCOL one. SO give us a ? for a question and a ! for a comment and good ole' Gene will keep track on y'all. Without further adieu let me introduce Mark Cecys from Apple. Mark, do you have a few word about the tool before we get to the questions?

**M Cecys** MIDI Synth is Apple's new MIDI/Synth/Sequencer tool for the GS.

**LindsayGS** Mark - does the new set include upgrades in system tools like MIDI?

**M Cecys** It's a new MIDI interface not based on MIDI Tools. It's integrated into one tool to work well with the synth and seq.

**A GibberFC** Any window on a shipping date or when I can get my hot little hands on it? How is the tool accessed by programs already out there?

**M Cecys** No real date yet. My guess is within a month at APDA. It's a brand new tool, it's not compatible with existing Tools.

**Rogue Sys** 1) number of instruments? 2) overhead it takes? 3) and how much ram/disk space does it take? 4) any new features in the instrument designer/main program?

**M Cecys** It works on banks of 16 instruments. Typical overhead is about 30% cpu time.

**Rogue Sys** No, how many instruments are included [ie, soundsmith has 50+ total].

**M Cecys** Takes about 25K disk space. It has a basically new instrument record.

**AFL TimB** Mark, isn't the instrument designer more like a synth in that you use sliders to change the sound? Thereby being able to created as many synthesized sounds as you can imagine?

**M Cecys** We plan on releasing many banks of instruments with the package to get you started. I should point out that we are releasing 'synthLAB', an application to design your instruments.

**AFL TimB** Don't sell SynthLAB short Mark, it's a LOT more than just an instrument designer.

**BostnFrank** On a ROM 1 gs, GSOS 5.02, 1.7 meg, what do I need to get/do to run this?

**M Cecys** Just boot the disk, you're there. 1 meg system, 5.0x GSOS is all you need.

**AFL TimB** Frank: Think Diversitune! You can play songs back without MIDI but (currently) you can't enter any music without MIDI. But the sound is MUCH better than DTUNE.

**AFC JoyceM** How would I purchase this from APDA? And, what can it do for me, as I am just a typical IIGS user.

**M Cecys** You need to be an APDA member to buy it. Hook up a MIDI keyboard and play your GS as a real synth.

**AFL TimB** It might (MIGHT) also be available online too.

**AFC JoyceM** So a non-member of APDA won't be able to get it?

**M Cecys** Eventually it will be on the GS system disk.

**DangardAce** 1) Will the new tool play in TRUE stereo (IE some instruments on left channel); 2) I know it's not your area, but how does Apple intend to market the new tools? Will it take a booth at NAMM to tout it or walk into an empty bus station, whip it out from under a coat, yell HERE IT IS! and slink away Passport is one of the WORST MIDI developers around, please pick another! and 3) how many tracks will the sequencer tool be?

**M Cecys** Each instrument can be assign to either stereo channel. 2) It's available to anyone interested thru APDA and we'll be seeding it to some developers, and 3) the sequencer supports 16 tracks.

**DangardAce** Please don't seed it to Passport! They messed up Master Tracks Pro IV badly!

**RickR31** From what you describe, does this tool allow you to play your GS as a synth, record as a sequencer, and then use the sequence in your programs? Also, just curious, why the delay from July in Kansas City to February on Tim's doorstep?

**M Cecys** Rick. That's right. Remember there's the tool that programmers use and then there's 'synthLAB' that any GS owner can use. Hey, I can only control the 'code' part.

**AFL TimB** It's tough to describe this but I'll try. As a non-programmer I don't know a tool from a hole in the wall. The MIDI Synth Tool is the operating system part of this project. However what I can appreciate is the SynthLAB that comes with the package. This is an almost fully functioning Sequencer/sound designer/GS sound player. You can record (easily I might mention) and play back with either the GS and/or a MIDI synth. You can mold the sounds to your needs.

**M Cecys** Thanks Tim. You want a sales job at Apple? :)

**AFA Bruce** Mark, from the Musician Trade Magazine's perspective, the GS has long been considered a joke. With the new tools, have you gotten any feedback from, say companies that have Mac software available. Have they shown any interest in developing for the GS with these tools?

**M Cecys** I don't know of any computer that can come even close to the sounds of MIDI synth. All the other computers in the market are only MIDI controllers. Hopefully GS developers will change this on the GS. with MIDI Synth, the GS can be a real "pro" sequencer. Along with it's powerful synth capabilities.

**AFA Gene** Good point, Mark.

**LindsayGS** Can new programs use it like a new midi tool? - is the midi buffer > 32K?, also will the

tools eventually get into GSOS so users have them?

**M Cecys** Lindsay. Yes you can use each part (synth, seq, MIDI) alone. No limit on the buffer size. Lindsay, it will be on future system disks.

**LindsayGS** Fantastic!

**A GibberFC** How do you think that Apple is going to over come the "Toy Image" of the //gs?

**M Cecys** I think MIDI Synth and synthLAB should help.

**Foosilier** Mark, just a quick note of thanks from this here programmer. The time and effort you have obviously spent on this new tool is going to go a long way in helping us develop better programs. Thanks.

**M Cecys** Thanks, hope you can use it.

**JSchober** All I want (need) from a MIDI system is a decent multi-track sequencer and the ability to convert keyboarded music to sheet music. There's no way to do that in a single application on the GS at this time. I'm not surprised that the professional mags sneer at the GS, just on that basis.

**M Cecys** It's up to developers to do that. MIDI Synth helps because most of the 'real' sequencer functions have been already done for them. hopefully something good will come of it.

**ELECTMUSIC** 1) File Formats- do you see these tools helping to standardize formats for sound and sequencer files, and 2) is the waveform buffer still limited to 64k?

**M Cecys** SynthLAB has file formats for both sounds and sequences. Hopefully MIDI synth apps will support both of them. 64k is the DOC ram size. You loose performance if you start swapping wave memory. But you really can do a lot with 64K wave memory.

**The Ronz** 1] Are the sound files from Ensoniq or did you (Apple) create them?? 2] When can we expect to see System 6.0 for the GS (as mentioned in MacWeek)? 3] Will you release your music demos to the public (via America Online)? (in question 1 I meant instrument files)

**M Cecys** Ronz. The waves and instruments are from Apple. Sorry, I can't comment on "6.0". 3) We are working on putting the files online. Nothing decided yet.

**AFL TimB** Ron: I can understand why people think these are demo's but take my word for it, SynthLAB (the application) is NO demo! :))

**APeach** What makes it different from earlier 'attempts' at MIDI interfacing? What is the difference between what you have done and what was done before?

**M Cecys** Large question! please be more specific.

**APeach** What is so different about what you have done, I mean in the sense that this new 'tool' is such an improvement.

**M Cecys** It sounds better, easier and more powerful programmers interface.

**AFL TimB** It's a more complete, better designed and far better sounding version of several of the old tools.

**APeach** I was wondering if you could compare it to something we know such as DiversifTune.

**AFL TimB** (Peach: All Dtune's features and more. Better sounding, instrument design, etc).

**A GibberFC** You mentioned that Developers are going to have to make the //gs accepted in the music world, but with the amount of Non-development on the //gs will Apple send out Evangelists to spur development? or will Apple just sit back and see what happens? Frankly, Apple has a lot of ground to cover because of the rumors of Demise of the //gs and the // line as a whole has the Major software makers are "Rethinking" apple //gs Development and right now the future doesn't look pretty.

**M Cecys** The instruments sound cleaner and are more interesting.

**AFL TimB** (BTW Mark, Gibber is of


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'them'... an Apple dealer)

**M Cecys** That's out of my area. sorry.

**AFL TimB** Gibber. maybe the Developers Association can help get Apple Marketing off their rear ends on the Apple II.

**PGauthier** Can you get a bit more specific about sound and sequence formats? Do you use ASIF for sounds and straight MIDI data for sequences or are you using the sequence format used in the old Sequencer toolset? And are the underlying sounds digitized from real sounds or have they been synthesized mathematically?

**M Cecys** Since the voice architecture is new, I can't use ASIF. The seq format is basically MIDI messages with time-stamps. The instruments are a combo of both, sort of like the D-50, sq-80, M1 .etc method.

**PGauthier** Is there a major difference between your new sound files and the files used in, say, Music Studio (the wavebank files)? Ok, thanks. Looking forward to seeing the tools.

**M Cecys** The instrument files are a bank of 16 instruments with a separate wave file.

**AFC DaveS** In the previous Music Tools chat you gave, you mentioned that the instruments were constructed of 4 oscillators/voice...has this changed? There are actually 16 instruments constructed from "partials" in a wave table now?

**M Cecys** Dave. yes 4 oscillators per voice. I didn't understand the 2nd part.

**AFC DaveS** Never mind...I think you answered it in your response to Paul's question. Thanks!

**DangardAce** 1) Are there any printing capabilities in the new tool that will be provided? 2) Will it NOW be possible for developers to add SMPTE/SYNC support for their MIDI programs? TRUE SMPTE?

**M Cecys** I don't follow the printing question. The tool supports MIDI sync.

**APeach** What's SMPTE?

**AFA Gene** SMPTE: Allows synchronization with movie scenes, etc.

**DangardAce** Clarification- will the development system provided allow you to print out scores and sequences?

**M Cecys** Sure, it's up to the app to do the printing.

**DangardAce** Call me dumb, but does the 64K limit mean that no instrument can realistically be larger than 16K, which doesn't sound like a good quality sample to me?

**AFL TimB** DangarAce: wait till you've heard it before you comment!

**M Cecys** You can use up to 64k for an instrument. Remember, that combining synth techniques with sampling can create very good instruments with even less than 16K.

**Rogue Sys** Is there a stand alone desktop sequence player included, and are the sounds driven by the sound tools, or have you rewritten them too?

**M Cecys** SynthLAB is an application that uses a new system tool called MIDI Synth.

**Rogue Sys** Re: 64k limit, there is the capability to jam up to 128k if a new GS ever comes and it'd be transparent to current software.

**ELECTMUSIC** You are supporting the standard Midi File Format that the industry has set up?

**M Cecys** Yes we are. By the time the final version of synthLAb is out, Importing/exporting should be there.

**ELECTMUSIC** Great!

**PGauthier** One last question: will the developer package contain source code?

**M Cecys** There will be example code in the package.done

**AFC DaveS** An "Us versus Them" question...we are having the 3rd Annual Computer Show-Off here at my college on the 31st of March...we'll be going up against Amigas and such...any chance that current popular computing platforms could even approach the quality of the new sound tools? I don't wanna get smoked like last year!

**AFL TimB** Dave, my offer to demo at your show still stands. With Mark's permission I'd even show off the MIDI Synth Tool.

**AFC DaveS** I'm pretty sure that with the limited voice range of the Amiga and (hahah) Atari ST, they wouldn't be able to muster up anything complex, but their samples have been cleaner-sounding in the past.

**M Cecys** I haven't heard any computer come close to MIDI Synth.

**AFL TimB** Dave, I have to concur with Mark's statement.

**The Ronz** What is the MAXIMUM number of instruments your tool can play AT ONE TIME??

**M Cecys** By using 4 oscillators per voice, this gives us 7 instruments at once. The voice stealing makes it sound like more.

**DangardAce** Assuming synthlab will let you create waveforms/instruments at the touch of a button and we don't have to worry about using up vast quantities of disk space for sampled sounds, is it possible or will Apple ever consider producing a REAL waveform analyzer so we can do fast fouriers and curve fitters to clean up the sound sampled from existing digitizers?

**M Cecys** A big advantage of synthesis vs. sampling is that instruments use very little memory. Writing a full-blown wave editor is something thats up to developers. I wish we could.

**DangardAce** Someone should

**M Cecys** I used Alchemy on the Mac and I wish there was something like that on the GS.

**AFL TimB** I'd like to thank Mark for joining us again tonight. Trust me, when you hear the new tool and SynthLAB you're going to be impressed too! This is the most significant step forward for the GS since 5.0 and for GS Music and Sound since the Gs came out!

**ELECTMUSIC** Thank you and you're support for the GS and music!

**M Cecys** Thanks, we're trying.

**AFA Gene** Tim, did you mention that we have a new AFC?

**AFL TimB** Folks, please welcome Lindsay Hough as our new kinda-AFC, LindsayGS. His work with Sysex has really helped the cause!

**M Cecys** I'm glad someone finally wrote a SYSEX program.

**LindsayGS** Well, it's real simple, compared to what you guys have been up to!

**AFL TimB** Now to fit it into an NDA that'll work with Mastertracks.

**AFA Gene** A BIG week in the history of the Musical Instrument Digital Interface!!!!!!

**AFA Bruce** Tim, have you noticed that Pro doesn't accept NDA's?

**AFL TimB** Bruce, mine accepts 'em but crashes on them.

**LindsayGS** I think the programming will open up with Mark's new tools.

**AFL TimB** Lindsay think that Passport isn't following memory guidelines.

**DangardAce** MT Pro has a problem accepting regular input.

**LindsayGS** That may be the problem with an NDA SysEx on MT

**AFL TimB** Don't forget that if Mark reveals Apple's secrets we won't have him working on GS Sound any more! Once again I would like to thank Mark for coming and would like to thank all of you for asking such great questions. Good Night.

**America Online, 1990.**

# Point To Point

## Colin Tinker looks at the Point To Point Communications program and compares it with the opposition

**First Impressions**

I suppose like most of you when you receive a new program, the first thing I do is to boot it up then sit down and read the manual. Anyway to my surprise I found that I was at home with Point to point straight away. From the title screen pressing escape takes you to the configuration menu or hardware menu as it is called. This comes up the same as the menus under AppleWorks with inverse bar, this is moved either by the arrow keys or by selecting the appropriate number. There are nine choices, as follows:

1. Modem slot number
2. Modem interface type
3. Using Hayes compatible modem
4. Printer Slot number
5. Printer interface type
6. Printer needs LF after CR
7. Printer set up string
8. Modem set up string
9. Number of auxiliary Mem banks

Setting the parameters up is easy, move the inverse bar to your choice press return and another set of choices is displayed, except for 7, 8 & 9 as these require input from the keyboard to set up the strings. Number 9 is useful if you have Ram expansion in slot 3 other than the standard 64k 80 column card as it allows you to expand the capture buffer if you need to. This can be done in banks of 64k up to 1 Meg, and supports the RamWorks card or compatible. It is a pity that this feature does not take into account Ram expansion in other slots as I have a 1 Meg AST card in slot 5 which cannot be used.

**Running Point to Point**

So the next step was to make a backup, I used Copy II plus disk copy. This worked fine and I put the original disc away. On running the program again it booted up to a title screen with press space to continue, as it always did from then on. it is a pity it could not be made to boot into the main menu as it can be a nuisance. A minor niggle though. I decide at this point to read the manual. This is fairly comprehensive, 145 pages in all. I found it to be reasonable easy to understand, whether a newcomer to computing would I can't say, but I managed to get along with it fine. The only trouble I did have was entering the macros at first but practice made perfect, more on this later. The main menu has 8 choices 1 & 2 are the dial and answer modes which I will discuss later, 3 is disc file activities they are the usual of which there 7 choices:

1. List all files on the disc (current)
2. Load a file from disc (into buffer)
3. Save a file to disc (from buffer)
4. Rename a file on disc
5. Delete a file on disc
6. Create a subdirectory
7. Change a drive or prefix

**Lets takes these in order.**

1 this lists all disc files on the current disc or sub directory, the memory each uses and its type eg TXT, BAS for text or basic in fact the usual information with the space left on the disk at the top of the menu.

2. Just as it says load a file from disc to the buffer for editing or transmission. It displays all text files on the current disc.

3. Same as above but save the buffer to the current disc, you will be asked for a name which of course must be a legal ProDOS name. If the file exists you will be asked (O)verwrite or (A)ppend, pressing O the file is overwritten pressing A tacks the file on to the end of the existing file.

4. This command ask for the new file name again it must be legal which it then renames.

5. Deleting a file is the same as AppleWorks it uses the same method move the bar to the file tick it with the right arrow key remove the tick with the left arrow key. You will be asked if you really want to do this, useful if like myself you have occasionally deleted a file you wanted. You can live as the manual says dangerously and hold down the open apple key while pressing return to do away with the do you want to do this prompt.

6. This will create a subdirectory on the current disc the rules are the same as for naming a file.

7. Again fairly simple if you are used to ProDOS. When asked the answer must be in the form /hard. disc/ myfile etc. Or move the inverse to the disc choice displayed depending upon what you selected.

Choice number 4 from the main menu is edit the buffer. this is very similar to AppleWorks word processor. Open Apple-E toggles the cursor between over strike (solid block) and insert (usual bar). I found this feature very handy as I use packet radio on the Amateur Bands, all files on radio are transmitted as text files with a 5K forwarding limit so many files come in sections with all sorts of text in between, so it was very useful to me to edit the files back to their original state.

Item 5 from the main menu is print the buffer or a file this is as it says send a file or the buffer to the printer. Next is edit the macro definitions, these can be used to auto log on to a BBS, all details are entered name, passwords etc. One macro can be used to call another much needed here as the macros can only be 31 characters long. They are sent by open-apple 5 from terminal mode or by a solid-apple plus the key you define. There can be 16 macros for each telephone directory entry. They have the usual commands eg wait for a text string etc. Then comes item 6 this is other activities which consists of text to AppleWorks file conversion and strip line feeds from a text file the former can save time when printing out a file under Apple Works. Finally there is option 8 quit which lets you quit to ProDOS, it asks 'do you really want to do this' type Y for yes or press ESC to quit without save the parameters. If you use a program selector this will be invoked or you will get the usual ProDOS screen to enter prefixes etc.

Now let us go back to option. 1 this is dial a number. when this is selected you will go to the telephone directory menu. There can be up to 16 entries in this menu. If the directory entry you chose is blank you will be asked to enter the data this is easily done by following the prompts given. Once entered the next menu gives you 3 options, connect the number, modify directory entry or modify the communications set up which allows you to enter the word format 8n1 etc. speed of your modem, parity and so on.

It is worth mentioning at this point that all Hayes modems are supported and they are compatible. I tried a couple of these types and had no problems with them, both of which where borrowed as I only have an old manual dial type but it is 2400 bis so I use this as it was cheap purchased at a radio rally. The only criticism I have here is that a command to drop into terminal mode without going through the menus would be useful as not all of us have autodial modems. When you select dial a number the next menu is shown which asks dial immediately, resume communica-

tions, or dial at a later time. the first option dials the number which is obvious the next drops into terminal mode if connected, the last asks for the time to dial enter the time eg 19:00 for 7 pm. this can only be done of course if you have a ProDOS compatible clock card in a slot on the //e.

**Dialling with Macros**

Automatic dialling at a later time is linked to the first macro by putting a + sign at the end of the directory number then the macros take over. I tried this once and all seemed to work well, as I don't have a No Slot Clock yet I only put in my AST multi function card with clock when I need it as I have all my slots full with other cards , mouse, 1 meg Ram, parallel card. SSC card, 80 column card, disc interface, and SCSI card. Oh for more slots!

Once in terminal mode the top couple of lines are taken up by time display, top left, open apple commands OA-1 through to OA-0 all with their meanings and top right buffer space. Making for an easy to use terminal mode. You can capture files to buffer, or to the currently logged in disc or directory. You can also send files from the same. I used all of these via radio and via my modem and all worked without a glitch until the other day when I tried to reset my parameters on my TNC for packet when the terminal program locked up. When I rebooted it would drop banks of characters at the beginning of the line and across the screen and would not function correctly until I reset the TNC (this stands for terminal node controller by the way) by using a packet program from a gentleman in Luxembourg. After that all was OK again. This could have been due to many factors and not Point To Point, which I suspect it was the TNC or radio interference getting into the cabling somewhere.

**Sending Files**

Files could be sent and received as text using the standard control-s control-q (Xon, Xoff) protocols, or by Xmodem file transfer. All of these worked without a flaw for the last month or so and seemed to be very reliable. One criticism here is that Ymodem was not included but only a minor drawback.

At first I did not like the program but it grew on me. Not having used Ewen's Gazelle I cannot compare it to that, I have used Data Highway which a friend loaned me, and I usually use Z. Link for my packet program. Another useful couple of programs supplied on the disc are FP and ML these convert basic and binary files to text files for sending. I found these very useful on packet radio as transmitting binary files which include control characters is frowned upon as they cause problems for monitoring stations. Why don't they get an Apple and filter out the control characters? I prefer Data Highway but it is not ProDOS which is what I mainly use, all have features which are pluses and minuses, I feel for what is offered here Point to Point is expensive when compared to the others.

Lastly was the auto answer mode which also worked without a flaw, this could be set up via macros to automatically send a file or capture to buffer or disc as could be done in terminal mode. I set it up with the TNC to send a small text file to say i was not available but to leave a message for me. This arrangement worked well and I only needed to review the buffer to see who had called me on the radio.

**Conclusions**

I have not gone into all the ins and outs of the program but the manual explains them all in reasonable detail, it is easy to follow, at least I found it so, and it is better than a lot of manuals I have seen. In all I would say Point to Point is a fair program which would suit most peoples taste in communications if it where slightly cheaper more in line with Gazelle. This being my main criticism price! Finally I will say you cannot please all of the people all the time. Everyone will find something different to complain about as is human nature, but if you like AppleWorks, and are familiar with its use, Point to Point is probably for you. As it is similar in its command structure to AppleWorks and its use of OA and Closed apple commands.

I hope you enjoy this review. It is the first time I have done anything like this and have enjoyed it. Lets have more of you contributing to Apple 2000 to make it a readers magazine with readers comments and views. (Hear, Hear ... Ed.)

**Colin Tinker**

*info*

*Product* : Point To Point
*Publisher* : PinPoint
*Available from* :
Bidmuthin Technologies
214 Kenton Road
Harrow
Middlesex HA3 8BT
01-907-8516
*Price* : £99 ex VAT
*Value* : ♦♦♦
*Performance* : ♦♦♦♦
*Documentation* : ♦♦♦
Gazelle (£59) is also available from Bidmuthin.
Antelope (Data Highway) (£25) available from Apple2000.

# Apple Finder

Elizabeth Littlewood keeps us upto date with the latest Apple sources

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This was formerly named Nibble Mac.

## ASSOCIATIONS

**develop**
Apple has a new magazine called develop - it is quarterly, and comes with a CD-ROM which contains the current issue plus all previous issues - articles, pictures and source code. The first issue was sent out free to all developers and APDA members. You can contact APDA for a subscription.

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# SoftCat Corner

**STATISTICS SOFTWARE** (following Apple 2000 review pp32 Dec'88)
Mike Tickle reviewed the original version of AppStat to good effect. However, the newest version with considerable enhancement cannot be reviewed by Mike as he hasn't got a //ecGS. If anyone has an interest in statistics and would like to have a go at reviewing "AppStats & Graphs" please contact P.O.Box 3. This latest version of Statsoft's program now includes Third Wave Technology's "Magna Charta" business graphics system

**PLATOON: THE COMPUTER GAME**
If you've seen Ocean's "Platoon" on other machines and wished it was available for the Apple, despair no more! A 128K 5.25" version for //ecGS users is now available from MGA SoftCat at the reduced price of £14.95 including VAT (plus postage). (Reviewer required). "Experience the impact of the film "Platoon". Lead your platoon through jungles, villages, foxholes and the undergrounds of Southeast Asia. Encounter snipers, traps, tripwires, armed patrols, and napalm airstrikes. Survival is the name of the game".

**CHEST-TOP PUBLISHING**
This new method of getting your message across is beginning to cause quite a stir. Special heat-transfer ribbons which allow you to produce an iron-on transfer from a dot-matrix printer are all the rage. Any graphics can be printed as-is by any program, but designs requiring text need special software which will reverse the output. Examples of these are PrintMaster Plus, Print Shop & Print Shop GS, Prince, and T-Shirt Shop. For Mac users, apparently MacPAINT also has this feature, but note that Print Shop Mac does not. Over 64 printers are supported, including ImageWriter/DMP, Epsons, Stars, Panasonics, Citizens etc... in both single colours as well as multi-colour.

**NEW MOUSE PRICING**
At last MGA can offer a realistic upgrade for users wishing to use Publish-It! and other WIMP programs. We have made available our new "CS-810 Mouse" at £39.95 and it is compatible with the Apple //c, Laser-128, and Apple //e with Apple MouseCard //. The mouse card alone is priced at £99.95. To complete the //e upgrade, the //e enhancement kit is available separately at £39.95. If you buy all three items at once the price is just £149.95, and the mouse + card combo is £129.95. (To compare, Apple's prices for their mouse plus card is £155.25, and their mouse + card + enhancement kit is £224.25.) (All prices in this article are WYSIWYP).

**CRYSTAL QUEST**
A very popular game for the Macintosh is now available for the IIGS. Lafe Low from inCider magazine Sep'89 uses these words to describe Crystal Quest; "...furiously addicting arcade game...deliriously fast action...entertaining graphics...amazing digitized sounds...Crystal Quest is a blast - no doubt about it. You always figure you can do just a little bit better on the next game, so you try again. I guess that's what they mean by 'addictive'".
In Crystal Quest you control a star-shaped orb with your mouse and move it around your screen to capture all the glowing crystals. Then you escape through a portal that opens at the bottom of the screen. This is the basis of CQ, but life is complicated by bizarre animals popping out of side doors and either hust floating around getting in your way, or actively trying to destroy you. Some creatures shoot fast, some shoot slow, some lay mines, some block your moves, shrapnel, bouncing bombs, regenerating 'dead' animals, lasers, bonus screen characters that give you extra bombs or more points; all these things and more make CQ the best new arcade game for the IIGS this quarter.
The price from MGA SoftCat is £34.95 WYSIWYP (the Macintosh version costs the same, but it is also available bundled with a "Crittur Editor" at £54.95, hopefully Casady & Greene will bring out a IIGS editor in the near future). Prospective reviewers' enquiries invited.

**VT-52 / VT-100 PROGRAMS (AGAIN?)**
Having had several enquiries recently on the subject of terminal emulation software, I have been forced to do some more research and have found out the following:- ASCII Express (DOS 3.3 or ProDOS) supports both VT-52 and VT-100, Z-TERM (for CP/M communicators) supports VT-100 and Gazelle (ProDOS) also supports VT100.

**PRINTRIX UPDATE FOR AWv3.0**
AppleWorks' new 'right justify' command works just fine in AppleWorks, but Printrix users will find that it doesn't work at all with Printrix. For your patched version of Printrix which will support this command, send a cheque for £4.00 together with your original Printrix disk or a copy of your Printrix invoice.

**NEW DISK DRIVE ADAPTORS**
MGA's R&D department has come up with several devices which can help cut the cost of replacing defective cards and/or adding extra drives. The first, (a world first, in fact, at least we think so...), is our all-new "DuoDisk Adaptor" at £24.95. This converts a standard twin 20-pin interface into a D-19 DuoDisk Interface. (No need to pay £72.30 for a replacement DuoDisk card, - simply attach our adaptor to a cheap Taiwan or 2nd-user Apple card at around £19.95. (For UniDisk 5.25 users who just want to connect one D-19 drive, a single drive version is also available for £14.95).
The second main adaptor is for IIGS users to connect a pair of 20-pin 5.25 drives to their end daisychain port. At £24.95 this could in theory save you over £300 by allowing you to connect two 2nd-user Disk ][s at £49.95 each. (A single drive version of this is available at £14.95 if you only want to connect one unit).
To complement this full range of adaptors, we also have extension cables in either 20-pin or D-19 format. Prices start at £9.95 for <1m, but any reasonable length can be supplied. The need for extension cables was high-lighted by the R&D department's brainwave of purchasing a small wall shelf (cost about £5.00 from local DIY stores) to accomodate their disk drives and so clear valuable desk space... (Good tip that!).

**REPLACEMENT SPREADSHEET**
Having been selling Practicorp's excellent spreadsheet "Practicalc II" for the last three years, we were surprised to find our source had dried up. Not to worry though, as we have effectively replaced the program with a selection of spreadsheets offering varying facilities. For Apple 64K //ecGS users we have "Better Working: Spreadsheet" from Spinnaker at just £29.95 postfree. For 128K //ecGS owners, Berkeley Softworks' new "GeoCalc" is a much more extensive alternative. At this time the only spreadsheet we can offer to 48K Apple ][ users is Artsci's long-running "Magicalc" at £69.95 postfree. One of the most valuable features in Magicalc is the fact that you can stash an old ][+ with obsolete 16K, 32K, 64K, &/or 128K RAMcards and use all the RAM up to a max of 512K! Magicalc also uses most 80-column cards without resorting to preboot disks...
None of these products has ever been reviewed in Apple 2000, and many newcomers aren't too sure exactly what a spreadsheet can do for them. Its about time an experienced member let on just how useful these tools can be. (Comparisons with the standard AppleWorks v3.0, and AppleWorks-GS, and AppleWorks v2.0 would be useful). Currently, AppleWorks v2.0 is the latest version that will work on a ][+, to our knowledge).
**Jon Gurr**
(Apple II Product Manager, MGA SoftCat)

# Library Update

## We release another batch of software into the library

**Another batch of disks is released into the ProDOS and the IIgs libraries. Order through the PO Box in Liverpool. 3.5 library disks are £4.50 each and the 5.25 library disks are £4.00. Price includes P&P and VAT.**

## Prodos 5.25 Library

### Disk PR020

```
/PR020/
  =SCSI.TAPE          DIR      1   4-MAR-90
    =BACKUP.DOCS        TXT     22   7-SEP-89
    =BACKUP             SYS      8   7-SEP-89
  =DISKBACK           DIR      2   4-MAR-90
    =STARTUP            BAS      3   1-SEP-89
    =DBACK.PIC          BIN     33   3-APR-89
    =PICFIXER           BIN      1  25-AUG-88
    =DBACK..V2.0        BAS     27  31-JUL-89
    =PREFIXS            TXT      1   2-SEP-89
    =PREFIXS.ALT        TXT      1   2-SEP-89
    =COPY               CMD      3   5-SEP-85
    =DATESTR            CMD      3   1-JAN-88
    =EJECT              CMD      3  15-MAY-87
    =DBACK.DOC.RDR      BAS      8   6-MAY-89
    =DBACK.DOC          TXT     55   2-SEP-89
    =DBACK.HELP         TXT     12  16-JUN-89
    =RESTORE.HELP       TXT     11  18-MAY-89
    =REGISTER.FORM      TXT      6  17-MAY-89
    =DBACK.NEWSTUFF     TXT      5  17-JUN-89
    =DBACK.Q.AND.A      TXT     24  28-APR-89
  =CHANGE.FILE        DIR      1   4-MAR-90
    =CHG.FIL.DOC        AWP     17   7-SEP-89
    =CHANGE.FILE        SYS     17   7-SEP-89
```

### Disk PR021

```
/PR021/
  =SKEW.F             DIR      1   4-MAR-90
    =FORMATTER          BAS     15   9-JUN-88
    =FORMATTER.TXT      TXT      7   9-JUN-88
    =FORMATTER.DOC      AWP      8   9-JUN-88
    =DS.BOOT.BLOCKS     BIN      7   9-JUN-88
    =SS.BOOT.BLOCKS     BIN      7   9-JUN-88
    =MOVER.BIN          BIN      1  27-DEC-87
    =FORMAT.BIN         BIN      1  23-MAY-88
    =SKEW.TEST          TXT      6  24-JUL-88
  =SETUP.F            DIR      1   4-MAR-90
    =SETUP.SYSTEM       SYS      1  28-SEP-87
    =CHK.SETUP.CODE     BAS      1  28-SEP-87
    =SETUP.SYSTEM.S     TXT     15  28-SEP-87
  =HDFORMAT           DIR      1   4-MAR-90
    =HDFORMAT.DOC       TXT      9  23-APR-89
    =HDFORMAT           SYS      4   7-MAY-89
  =ADB.READER         BAS     11  24-JAN-89
  =ENCRYPT            DIR      1   4-MAR-90
    =ENCRYPTOR          SYS     16   4-JUL-88
    =ENCRYP.MENU        BAS      4   5-JUL-88
    =ENCRYP.DOCS.BXT    BIN     20   5-JUL-88
  =P8.SCSI.STUFF      DIR      1   4-MAR-90
    =SWAPSCSI.DOC       TXT      8  20-NOV-89
    =SWAPSCSI           BIN      1  25-JUL-89
    =VANILLA.MANUAL     AWP     33   6-JAN-90
    =VANILLA            BAS     26   6-JAN-90
    =SMARTPORT          BAS     36   6-SEP-89
    =VERIFY             BIN      3   1-JAN-90
    =DISK.TEST          SYS      7  29-SEP-89
```

### Disk PR022

```
/PR022/
  =APPLEPACKET        DIR      1   4-MAR-90
    *TERMINAL.SYSTEM    SYS     10  29-OCT-87
    *TERMINAL.HELP      TXT      3  13-OCT-87
    *TERMINAL.DOC       TXT     31  16-OCT-87
    *SOURCE             DIR      1   4-MAR-90
      *COMMAND            $B0     17  13-OCT-87
      *COMMON             $B0     12  29-OCT-87
      *DISK               $B0     17  20-SEP-87
      *MAIN               $B0     32  16-OCT-87
      *SETUP              $B0     15  20-SEP-87
      *TERM               $B0      7  16-OCT-87
      *WINDOW             $B0     22  20-SEP-87
      *XMODEM             $B0     16  29-OCT-87
  =KID.MAIL.SHK       $E0     41  18-DEC-89
  =CAT.TEXT           DIR      1   4-MAR-90
    =CAT.TEXT           BAS      5   8-OCT-87
    =CAT.TEXT.DOC       TXT      5  13-OCT-87
  *WINDOW             BAS      8   1-JUN-87
  =RAM                DIR      1   4-MAR-90
    =RAMSET.DOC         TXT     12  26-AUG-89
    =RAMSET             BAS      1  26-AUG-89
  =BASIC.PATCH        DIR      1   4-MAR-90
    =BAS.PAT.DOX        TXT      5  18-SEP-88
    =BASIC.PATCH        BAS      4   4-AUG-88
```

### Disk PR023

```
/PR023/
  *DOS.MASTER         DIR      1   4-MAR-90
    =DOS.3.3            SYS     21  16-AUG-89
    *STARTUP            BAS      4  23-OCT-88
    *DOS.MASTER.DOC     TXT     36  15-DEC-88
    *MAKE.DOS           BAS     11  23-APR-88
    *DOS.INSTALL        SYS      6  23-OCT-88
    *REVISE.DM          BAS      5  21-MAR-88
    *DOS.MASTER         BIN      4   3-APR-88
    *DOS                BIN     19  25-SEP-87
    *RDLINE             CMD      4  15-SEP-87
    *TYPE               CMD      3  18-JUL-85
  =GLANMIRE.STUFF     DIR      1   4-MAR-90
    =ATINIT             $E2      1  17-FEB-89
    =READ.CLOCK.S       TXT     11  17-FEB-89
    =SETUP.SYSTEM       SYS      1  17-FEB-89
    =CLOCK.DRV.G.ZP     SYS      1   1-JAN-89
    =CLK.DRV.SOURCE     TXT      6  17-FEB-89
  =SUPERPATCH         DIR      1   4-MAR-90
    =SUPERPATCH.31      BAS     64   8-JAN-89
    =SUPERPATCHDOX      AWP     71   8-JAN-89
```

### Disk PR024

```
/PR024/
  =VIEWPIC            DIR      1   4-MAR-90
    =PIC.CONVERTER      BAS      3  15-MAY-88
    =PIC.VIEWER         BAS      3  15-MAY-88
    =FADE               BIN      1  14-MAR-88
  =DOGPAW             DIR      2   4-MAR-90
    =DOGPAW             BIN     11  31-JUL-88
    =DOGPAW.DOCS        TXT     28  13-MAY-88
    =STARTUP            BAS      9  17-APR-88
    =ABOUT.DOC.STUFF    TXT     16   1-AUG-88
    =COMPRESSOR         BIN     10  10-MAY-88
    =COMPRESSOR.DOCS    TXT      6  28-FEB-88
    =BEEXTER            BIN     14   2-AUG-88
    =BEEXTER.DOC.BXT    BIN     20  23-APR-88
    =DOC.SCREENER       BAS     25  31-MAR-88
    =DOC.SCREENER.80    BAS      9  25-FEB-88
    =DOC.GETTER.B       BIN      9  10-MAY-88
    =DOC.GETTER.A       BAS      5   4-NOV-87
    =SCLU               BAS     22  23-APR-88
    =SCLU.DOCS          TXT     14  25-JAN-88
    =IMAGE2.MOUSETXT    BAS      3  28-OCT-87
```

# IIgs 3.5 Library

## Disk 2GS025

```
/LIBRARY.25/
  =GENERAL.SHK      $E0     322   3-MAR-90
  =MANDELBROT.SHK   $E0     162   3-MAR-90
  =PIN.UPS.SHK      $E0     376   3-MAR-90
  =ANIMALS.SHK      $E0      91   3-MAR-90
  =CARTOONS.SHK     $E0     171   3-MAR-90
  =HIGH.TEC.SHK     $E0     155   3-MAR-90
  =GRAYTONES.SHK    $E0     265   3-MAR-90
```

## Disk 2GS026

```
/LIBRARY.26/
  =C1.SAVER          DIR       1   3-MAR-90
    =C1.SAVER.DOC    TXT       3   11-AUG-88
    =C1.SAVER.OBJ    BIN       1   11-AUG-88
  =PS.CONVERT        DIR       1   3-MAR-90
    =PS.UPGRADER     BAS       5   13-APR-89
    =PS.UPGRADER.DOC TXT      11   7-FEB-88
  =PAINT256          DIR       1   3-MAR-90
    =P256.SYS16      $B3     312   16-SEP-89
    =READ.THIS.TXT   TXT       7   28-SEP-89
    =READ.THIS       AWP       9   28-SEP-89
  =ANIMATE.SHOW      DIR       1   3-MAR-90
    =GSJUGGLER.SHOW  $C2     310   15-APR-88
    =ANISHOW         $B3       9   11-APR-88
  =POLYGON           DIR       1   3-MAR-90
    =ABOUT.POLYGONIA TXT      24   10-NOV-89
    =POLYGONIA.I     $B3      54   8-NOV-89
    =POLYGONIA.ICON  $CA       3   7-NOV-89
  =PIC32000.SHK      $E0     783   3-MAR-90
```

## Disk 2GS027

```
/LIBRARY.27/
  =FONTS             DIR       6   3-MAR-90
    =HEBREW.24       $C8      14   27-OCT-88
    =WALL.ST.18      $C8      10   5-NOV-87
    =WALL.ST.14      $C8       8   5-NOV-87
    =WALL.ST.12      $C8       6   5-NOV-87
    =WALL.ST.10      $C8       5   5-NOV-87
    =HEBREW.18       $C8       8   5-OCT-88
    =HEBREW.12       $C8       6   27-OCT-88
    =SWIFT.36        $C8      14   29-MAR-88
    =SWIFT.24        $C8       8   29-MAR-88
    =SWIFT.16        $C8       5   29-MAR-88
    =SWIFT.08        $C8       3   28-OCT-87
    =JERSEY.BOLD.14  $C8       4   28-OCT-87
    =JERSEY.12       $C8       4   28-OCT-87
    =FLORENCE.24     $C8      33   22-MAR-87
    =FLORENCE.12     $C8      12   22-MAR-87
    =CHARLESTON.28   $C8      15   12-FEB-88
    =CHARLESTON.24   $C8      12   12-FEB-88
    =CHARLESTON.20   $C8      11   12-FEB-88
    =CHARLESTON.18   $C8       9   12-FEB-88
    =CHARLESTON.14   $C8       7   12-FEB-88
    =CHARLESTON.12   $C8       6   12-FEB-88
    =CHARLESTON.10   $C8       5   12-FEB-88
    =CAMELOT.24      $C8      16   1-SEP-87
    =CAMELOT.12      $C8       7   1-SEP-87
    =CAIRO.9         $C8       6   26-SEP-88
    =CAIRO.36        $C8      42   20-JUL-87
    =CAIRO.18        $C8      13   20-JUL-87
    =ALDERNEY.10     $C8       7   27-OCT-88
    =ALDERNEY.20     $C8      18   27-OCT-88
    =ALDERNEY.12     $C8       9   27-OCT-88
    =ALDERNEY.14     $C8      11   27-OCT-88
    =ALDERNEY.18     $C8      16   27-OCT-88
    =ALDERNEY.24     $C8      24   27-OCT-88
    =ALDERNEY.28     $C8      31   27-OCT-88
    =ALDERNEY.36     $C8      53   27-OCT-88
    =ALDERNEY.48     $C8      58   27-OCT-88
    =ALDERNEY.9      $C8       7   27-OCT-88
    =ALICE.12        $C8       7   1-SEP-87
    =ALICE.18        $C8      10   1-SEP-87
    =ALICE.24        $C8      15   1-SEP-87
    =ALICE.9         $C8       5   1-SEP-87
    =ARLINGTN.10     $C8       6   17-FEB-88
    =ARLINGTN.12     $C8       8   17-FEB-88
    =ARLINGTN.14     $C8       9   17-FEB-88
    =ARLINGTN.18     $C8      12   17-FEB-88
    =ARLINGTN.20     $C8      14   17-FEB-88
    =ARLINGTN.24     $C8      17   17-FEB-88
    =ARLINGTN.36     $C8      34   17-FEB-88
    =ARLINGTN.9      $C8       6   17-FEB-88
    =BEVHILLS.10     $C8       7   26-OCT-88
    =BEVHILLS.12     $C8       8   26-OCT-88
    =BEVHILLS.14     $C8      10   26-OCT-88
    =BEVHILLS.18     $C8      13   26-OCT-88
    =BEVHILLS.20     $C8      15   26-OCT-88
    =BEVHILLS.24     $C8      19   26-OCT-88
    =BEVHILLS.28     $C8      29   26-OCT-88
    =BEVHILLS.36     $C8      43   26-OCT-88
    =BEVHILLS.48     $C8      65   26-OCT-88
    =BEVHILLS.9      $C8       7   26-OCT-88
    =BRENNERO.12     $C8       8   5-OCT-88
    =BRENNERO.24     $C8      21   5-OCT-88
    =CAIRO.16        $C8      16   2-JAN-04
    =CAIRO.8         $C8       6   2-JAN-04
    =COURIER.10      $C8       6   27-NOV-86
    =COURIER.12      $C8       7   27-NOV-86
    =WALL.ST.24      $C8      15   5-NOV-87
    =WALL.ST.9       $C8       5   5-NOV-87
    =WALL.ST.20      $C8      11   5-NOV-87
    =WALL.ST.48      $C8      45   5-NOV-87
    =WALL.ST.36      $C8      28   5-NOV-87
    =WALL.ST.28      $C8      19   5-NOV-87
  =FONTMUNGER        DIR       1   3-MAR-90
    =RES.TXT.INFO    TXT       5   30-MAY-89
    =RESOURCE.TXT    TXT       8   21-MAY-89
    =RESLIST         BAS       8   22-MAY-89
    =FONT.MUNGER     BAS       3   7-MAR-89
    =FIGURE.6.SHR    $C0      18   21-MAY-89
    =FIGURE.9.SHR    $C0      15   21-MAY-89
    =FIGURE.10.SHR   $C0      35   21-MAY-89
  =FONTDOCTOR        DIR       1   3-MAR-90
    =FONTDOCTOR.ICON $CA       5   16-MAR-89
    =FONT.DOCTOR     $B3     180   6-MAY-89
    =FONTDOCTOR.DOC  TXT      29   6-MAY-89
  =FONT.SCAN         DIR       1   3-MAR-90
    =FONTSCAN        $B3      75   21-JUL-89
    =FONTSCAN.DOC    TXT      28   21-JUL-89
    =FONT.DATA.FMT   ADB       3   21-JUL-89
  =SHANGHAI.TILES    DIR       1   3-MAR-90
    =TILESET         $C1      65   23-JUL-89
```

## Disk 2GS028

```
/LIBRARY.28/
  =ICON.APP          DIR       1   3-MAR-90
    =ICONAPP.DOC     TXT      10   14-JAN-90
    =ICON.APPLICATOR $B3      25   14-JAN-90
  =ICONS             DIR       1   3-MAR-90
    =LAUNCHICONS1    TXT      51   27-OCT-89
    =MEAN18.ICONS    $CA       8   30-DEC-88
    =MUSIC.ICONS     $CA       5   2-SEP-89
    =GAZELLE.ICON    $CA       3   2-SEP-89
  =ICON.EDITOR       DIR       1   3-MAR-90
    =IE.ICONS        $CA       4   16-SEP-88
    =ICONED.REV      TXT       6   1-OCT-88
    =ICONED          $B3      56   16-SEP-88
  =DICED             DIR       1   3-MAR-90
    =DICED1.1.HELP   TXT      25   25-OCT-88
    =DICED.REV       TXT       6   25-OCT-88
    =DICED           $B3     175   26-FEB-89
    =DICED.HELP      TXT      26   26-FEB-89
  =LAUNCHBOX.S16     DIR       1   3-MAR-90
    =LAUNCHBOX       $B3      17   13-AUG-88
    =LAUNCHBOX.DOC   TXT      14   17-AUG-88
    =LAUNCHBOX.TXT   TXT       1   20-SEP-88
  =GS.DIAGNOSTICS    DIR       1   3-MAR-90
    =STARTUP         BAS      18   6-AUG-89
    =TEST.CODE       $02       3   6-AUG-89
    =GS.256K         $08      17   6-AUG-89
    =GS.512K         $08      17   6-AUG-89
```

```
  =GS.1024K          $08      17   6-AUG-89
=PUPS              DIR         1   3-MAR-90
  =PUPS.SYSTEM     SYS        37  25-MAY-88
  =README          TXT         4  25-MAY-88
  =PUPS.NAME.LST   BIN         9  25-MAY-88
=SLOSPEED.LAUNCH DIR           1   3-MAR-90
  =SLOW.TEMPLATE   BIN         1   2-SEP-88
  =SLOSPEED.LAUNCH $B3        12   2-SEP-88
=SETUP.SELECT      DIR         1   3-MAR-90
  *BOOT.S4         BAS         1   5-JUN-88
  *SETUP.SELECT    BAS        13   9-JUN-88
  *BOOT.S5         BAS         1   5-JUN-88
  *BOOT.S7         BAS         1   5-JUN-88
  *BOOT.S6         BAS         1   5-JUN-88
=SECOND.CHANCE     DIR         1   3-MAR-90
  =S.CHANCE.DOX    TXT        50   1-SEP-89
  =SECOND.CHANCE   $B3       120   1-SEP-89
=CDEV.S            DIR         1   3-MAR-90
  =TRANSWARP       $C7        15  15-NOV-89
=DESK.ACCESSORY    DIR         2   3-MAR-90
  =CONTROLPANELNDA DIR           1   3-MAR-90
    =SLOTS.CP          $B4        7  15-MAY-88
    =GENERAL.CP        $B4       11  15-MAY-88
    =INPUT.CP          $B4        7  15-MAY-88
    =PANEL             $B8       12  15-MAY-88
  =BARCLOCK.NDA      DIR         1   3-MAR-90
    =BARCLOCK.DSCRIP TXT         3  18-JUN-88
    =BARCLOCK.ICON   $CA         3  18-JUN-88
    =BARCLOCKNDA     $B8        19  18-JUN-88
  =MEMOPAD           DIR         1   3-MAR-90
    =MEMOPAD.NDA     $B8         9  22-OCT-89
    =ABOUT.MEMOPAD   $B0         3  22-OCT-89
    =MEMOPAD.FILE    TXT         1  24-OCT-89
  =MENUTIMEHM.NDA  $B8           6  15-DEC-88
  =READER.NDA      $B8           6  27-SEP-88
  =DISKWITCH         DIR         1   3-MAR-90
    =DISK.WITCH      $B9        45   9-JAN-90
    =DISKWITCH.DOC   TXT         9  29-DEC-89
  =IW2               DIR         1   3-MAR-90
    =IW2.DA          $B9        25  20-NOV-89
    =IW2CDA.DOC      TXT         5  24-NOV-89
    =IW.DA           $B9        23  23-MAR-88
  =HDB.CONVERT       DIR         1   3-MAR-90
    =HDB2.DA         $B9        22  25-AUG-89
    =HDB.DA          $B9         6  30-JUN-87
  =DESKPIC.INIT      DIR         1   3-MAR-90
    =DESKPIC.INIT    $B7         1  24-OCT-89
    =DESKPICTURE     $C1        65  20-JAN-90
  =ALARMCLOCK.F      DIR         1   3-MAR-90
    =ALARMCLOCK.DOCS TXT         5  19-MAR-88
    =ALARM           $B8        23  13-MAR-88
  =DALOAD            DIR         1   3-MAR-90
    =LOADDA          $B8        18  23-JAN-90
    =LOADDA.DOC      $B0        13  23-JAN-90
  =SHUTDOWN.DA       DIR         1   3-MAR-90
    =SHUTDOWN        $B8         3  21-OCT-89
    =SHUTDOWN.DOC    TXT         3   8-NOV-89
  =MASTER.F          DIR         1   3-MAR-90
    =MASTER.DOC      TXT         9  19-SEP-87
    =MASTER.DA       $B9         5  19-SEP-87
    =MASTER.BUILDER  BAS         6   8-OCT-87
  =SETSLOT.CDA     $B9           3   9-JAN-88
  =HORLOGE         $B8           6   4-MAY-89
  =FN.LOAD           DIR         1   3-MAR-90
    =LOADFONT        $B8        13  10-FEB-90
    =LOADFONT.DOC    TXT        13  10-FEB-90
  =ACCHOS            DIR         1   3-MAR-90
    =ACC.CHOOSER.DOC TXT        13   1-MAR-90
    =ACC.CHOOSER.3.0 $B8        12   1-MAR-90
  =LONG.MEMORY       DIR         1   3-MAR-90
    =LONGMEMORY2     $B8        20   2-NOV-89
    =LONGMEM2.DOCS   TXT         4  25-NOV-89
=SETUP.FILES       DIR         1   3-MAR-90
  =FASTTXT           DIR         1   3-MAR-90
    =FASTEXT.DOC     TXT         6  15-MAR-89
    =FASTEXT         $B6         4  17-FEB-8
  =PERCOM            DIR         1   3-MAR-90
    =PERCOMCDA       $B9         1  23-JAN-90
    =PERCOMINIT      $B7         1  23-JAN-90
    =PERCOM.README   TXT         9  23-JAN-90
  =BRKCURSOR         DIR         1   3-MAR-90
    =BRKCURSOR.DOC   TXT         8  28-SEP-89
    =BRKCURSOR       $B6         1  28-SEP-89
    =BRKCURSOR.ICON  $CA         1  28-SEP-89
=SECTOR.EDITOR     DIR         1   3-MAR-90
  =SI.FEATURES       TXT        42   3-MAR-90
  =SI.RWTS           BIN         6   8-JAN-89
  =SI1.0.CONFIG      SYS         8  20-DEC-89
  =SI1.0.SYSTEM      SYS        65  25-SEP-89
=DA.SELECTOR       DIR         1   3-MAR-90
  =DASELECT.DOC      TXT         6   4-SEP-88
  =DASELECT          $B3        25   4-SEP-88
=MOUSE.LABEL       DIR         1   3-MAR-90
  =MOUSELABEL1.1     $B3        37  10-MAY-87
```

## Disk 2GS029

```
/LIBRARY.29/
=SOUNDSMITH.SHK  $E0       590   3-MAR-90
=POLYSONS.SHK    $E0       276   3-MAR-90
=MUSIC.FILES       DIR         2   3-MAR-90
  =LADYMADONNA       $D5         8   7-AUG-87
  =HEYJUDE           $D5        10   7-AUG-87
  =MICHELLE          $D5         9  21-MAR-87
  =HARDDAY           $D5         9  21-MAR-87
  =ELRIGBY           $D5         8  22-JUL-87
  =EQUINOX.SNG       BIN        36   3-DEC-89
  =JARRE.SND         BIN         3   3-DEC-89
  =TUES.PM.DTUNE     $D5        29  18-AUG-89
  =VATICAN.RAG       $D5        25   7-AUG-88
  =FUDGE.SNG         BIN        24  21-JUL-89
  =DIGFIELD.SNG      BIN        35  25-JUN-88
  =AMANDA.SNG        BIN        16  30-MAY-87
=SOUNDS            DIR         1   3-MAR-90
  =NO.PURPOSE.ACE  $CD         48  23-MAY-89
  =HUMAN.ERROR.ACE $CD         27  23-MAY-89
  =HAL.MY.MIND.ACE $CD        120   3-APR-89
  =HI              TXT         33  13-NOV-89
  =OH.DARN         TXT         49  13-NOV-89
  =MEEP.MEEP       TXT        53  13-NOV-89
=DTUNE.DEMO.SHK  $E0       171   3-MAR-90
```

## Disk 2GS030

```
/LIBRARY.30/
=SNOWTERM.2        DIR         1   3-MAR-90
  =SNOWTERM.SINGLE $E0       198  17-FEB-90
  =SPECFONT        TXT         9   6-MAY-89
  =REGFONT         TXT         9   6-MAY-89
  =ST.DIALLIST     TXT         1  28-AUG-89
  =README          TXT        52  17-FEB-90
  =UNSINGLEST      $B3        18  24-JAN-90
=GENCOM            DIR         1   3-MAR-90
  =GENCOMM.SYS16   $B3        75  10-FEB-90
  =GENCOMM.DOC     TXT        24  10-FEB-90
  =DIALLIST        TXT         1   3-MAR-90
=XTRAX             DIR         1   3-MAR-90
  =XTRAX.BUILDER   BAS        13  28-JUN-89
  =XTRAX.DOCS      TXT        40  17-JUL-89
  =XTRAX.BOOT.S    TXT         4  28-JUN-89
  =XTRAX.BOOT.T    TXT         1  27-JUN-89
  =XTRAX.EXTRACT.S TXT        13  28-JUN-89
=ZLINK             DIR         1   3-MAR-90
  =Z.LINK.ICONS    $CA         3  18-APR-89
  =Z.LINK.EDIT     BAS        14  28-AUG-89
  =Z.LINK.SYSTEM   SYS        41   7-SEP-89
  =MACRO.UPDATE    BAS         3   7-JUN-89
  =VT220.CONFIG    $5A         4   9-SEP-89
  =VT220.MAP.AW    AWP        10  15-DEC-88
  =Z.LINK.DOC.AW   AWP        98  10-SEP-89
=BLU.SOURCE        DIR         2   3-MAR-90
  =NOTEFROM.FLOYD  $B0         3  14-FEB-90
  =BLU.MACROS      $B0        18  28-SEP-87
  =PRC.MACROS      $B0        24  28-SEP-87
  =SQ.MACROS       $B0        38  24-SEP-87
  =USQ.MACROS      $B0        21  12-OCT-87
  =EQUATES         $B0        12  12-OCT-87
  =TEST            SYS        45  18-FEB-88
  =FIX             $B0         1   9-OCT-87
  =MAKE.BLU        $B0         1  26-SEP-87
```

```
  =BLU                $B0      21  18-FEB-88
  =HELP               $B0       7  18-FEB-88
  =BNY                $B0      11  18-FEB-88
  =SELECT             $B0      22   1-OCT-87
  =MAKE               $B0      15   1-OCT-87
  =EXTRACT            $B0      21  12-OCT-87
  =LIST               $B0       9  12-OCT-87
  =DELETE             $B0       3  28-SEP-87
  =SQ                 $B0      29  18-FEB-88
  =SQSUB              $B0      34  27-SEP-87
  =SQSUB1             $B0       6  24-SEP-87
  =USQ                $B0      25  12-OCT-87
  =SQDATA             $B0       5  27-SEP-87
  =LIB                DIR       2   3-MAR-90
    =LIB.MACROS       $B0       5  14-SEP-87
    =ERR              $B0      11  13-FEB-88
    =MLI              $B0      13  13-FEB-88
    =LIB              $B0      20  13-FEB-88
    =MAKE.MLI         $B0       1  17-MAY-87
    =MAKE.ERR         $B0       1  14-SEP-87
    =MAKE.LIB         $B0       1  17-MAY-87
    =ERR.MACROS       $B0       6  26-AUG-87
    =CAT              $B0      25  18-FEB-88
    =MAKE.CAT         $B0       1  14-SEP-87
    =CAT.MACROS       $B0       9  16-DEC-87
    =BUG              $B0       4  29-DEC-87
    =MAKE.BUG         $B0       1  29-DEC-87
    =BUG.MACROS       $B0       4  29-DEC-87
  =C.PREPROCESS       DIR       2   3-MAR-90
    =CPP.DOC          TXT      25  18-AUG-89
    =CPP.H            $B0      14  18-AUG-89
    =CPPDEF.H         $B0      13  18-AUG-89
    =CPP1.C           $B0      32  18-AUG-89
    =CPP2.C           $B0      24  18-AUG-89
    =CPP3.C           $B0      14  18-AUG-89
    =CPP4.C           $B0      34  18-AUG-89
    =CPP5.C           $B0      43  18-AUG-89
    =CPP6.C           $B0      56  18-AUG-89
    =MAKE             $B0       1  18-AUG-89
    =README           TXT       6  19-AUG-89
    =CPP              $B5     116  18-AUG-89
```

## Disk 2GS031

```
/LIBRARY.31/
  =TOWERHANOI         $B3      46  18-AUG-87
  =F1RACE             DIR       1   4-MAR-90
```

# PSS DialPlus

PSS DIALPLUS is British Telecom's new asynchronous PSS dial service which can be used by Telecom Gold customers to access Telecom Gold.

PSS Dialplus provides error correction, local call access for over 90% of the business community and the following access speeds : 300 bps, 1200 bps, 1275 bps, 2400 bps.

The error correction provided conforms to CCITT recommendation V.42, which specifies support of LAP-M and MNP (classes 2 to 4). V.42 ensures that problems caused by line noise will be eliminated.

If you are using FT (File transfer service) and have a modem which supports MNP, please refer to the INFO FT MNP info file.

PSS Dialplus provides extensive 'local call' coverage through a network of over 60 access points, enabling Telecom Gold to provide you with a further choice of access methods. It is also extremely easy to use :

Once you have dialled the number, simply type in a special password (GOLDnn where nn is your system number) and you will be connected to Telecom Gold.

**PSS DialPlus Network Access Points**

The following Dialplus Network Access Points are now in service:

| | |
|---|---|
| Aberdeen | 0224 210701 |
| Ayr | 0292 611822 |
| Birmingham | 021-633 3474 |
| Belfast | 0232 331284 |
| Brecon | 0874 3151 |
| Brighton | 0273 550045 |
| Bristol | 0272 211545 |
| Cambridge | 0223 460127 |
| Canterbury | 0227 762950 |
| Cardiff | 0222 344184 |
| Carlisle | 0228 512621 |
| Chelmsford | 0245 491323 |
| Cheltenham | 0242 227547 |
| Crewe | 0270 588531 |
| Dundee | 0382 22452 |
| Exeter | 0392 421565 |
| Edinburgh | 031 313 2137 |
| Glasgow | 041-204 1722 |
| Grimsby | 0472 353550 |
| Guildford | 0483 38632 |
| Halifax | 0422 349224 |
| Hastings | 0424 722788 |
| Inverness | 0463 711940 |
| Ipswich | 0473 210212 |
| Kings Lynn | 0553 691090 |
| Kinross | 0738 33200 |
| Leeds | 0532 440024 |
| Leamington Spa | 0926 451419 |
| Leicester | 0533 628092 |
| Lincoln | 0522 532398 |
| Liverpool | 051-255 0230 |
| Llandrindod Wells | 0597 5881 |
| Llandudno | 0492 860500 |
| London (Clerkenwell) | *01-490 2200 |
| London (Colindale) | **01-905 9099 |
| London (Croydon) | **01-681 5040 |
| Luton | 0582 481818 |
| Machynlleth | 0654 703560 |
| Manchester | 061-834 5533 |
| Middlesbrough | 0642 245464 |
| Neath | 0639 641650 |
| Newcastle | 091 261 6858 |
| Northampton | 0604 33395 |
| Norwich | 0603 763165 |
| Nottingham | 0602 506005 |
| Oxford | 0865 798949 |
| Petersfield | 0730 65098 |
| Peterborough | 0733 555705 |
| Plymouth | 0752 603302 |
| Poole | 0202 666461 |
| Preston | 0772 204405 |
| Reading | 0734 500722 |
| Rotherham | 0709 820402 |
| Rugeley | 0889 576610 |
| Sedgwick | 0539 561263 |
| Sevenoaks | 0732 740966 |
| Shrewsbury | 0743 231027 |
| Southampton | 0703 634530 |
| Swindon | 0793 541620 |
| Taunton | 0823 335667 |
| Warminster | 0985 846091 |
| Truro | 0872 223864 |
| York | 0904 625625 |
| Vodafone Gateway | 970970 |

* On 6th May, 1990 this London code will change to 071
** On 6th May, 1990 this London code will change to 081
Further access points will be brought into service before the end of February 1990, as this happens this file will be updated.

```
   =F1.RACE            $B3      159  25-AUG-88
   =RACE.EXPLODE7      BIN       43  25-AUG-88
   =RACE.DOC           TXT       15  25-AUG-88
 =DAZZLERGS          $B3        96   2-OCT-88
 =MUSICGAME          $B3        68  11-MAY-89
 =LIFE               DIR         1   4-MAR-90
   =LIFE             $B3       123  13-NOV-88
   =LIFE.GS2         BIN         4  14-AUG-88
 =ORBIZO             DIR         1   4-MAR-90
   =READ.ME          TXT        14  19-NOV-89
   =DATA             DIR         2   4-MAR-90
     =AST.TABLE        BIN       29  17-NOV-89
     =SET.AST          BIN       10  18-NOV-89
     =BLOW1.ACE        BIN        5  17-NOV-89
     =LASER.ACE        BIN        5  17-NOV-89
     =CHOOSE.PAK       BIN       26  19-NOV-89
     =TITLE.PAK        BIN       20  19-NOV-89
     =PLAY.PAK         BIN        9  17-NOV-89
     =VOICE1.ACE       BIN        9  17-NOV-89
     =SHIELD.ACE       BIN        9  18-NOV-89
     =DESTROY.ACE      BIN        9  18-NOV-89
     =COMPLETE.ACE     BIN        9  18-NOV-89
     =LAST.ACE         BIN        9  18-NOV-89
     =TONE.ACE         BIN        9  18-NOV-89
     =XENO.PAK         BIN       22  19-NOV-89
     =OVER.ACE         BIN        9  19-NOV-89
     =BYE.PAK          BIN       19  19-NOV-89
     =INFO.PAK         BIN       17  19-NOV-89
     =BBS.PAK          BIN       23  27-JUL-11
   =ORB.SYS16        $B3        35  19-NOV-89
   =TEMPLATES        DIR         1   4-MAR-90
     =BLANK.TEMPLATE   $C1       65  30-JUL-11
     =DEFAULT0         $C1       65  29-JUL-11
     =DEFAULT9         $C1       65  19-NOV-89
     =DEFAULT8         $C1       65  19-NOV-89
     =DEFAULT2         $C1       65  29-JUL-11
     =DEFAULT5         $C1       65  29-JUL-11
     =DEFAULT1         $C1       65  29-JUL-11
     =DEFAULT4         $C1       65  29-JUL-11
     =DEFAULT7         $C1       65  30-JUL-11
     =DEFAULT3         $C1       65  19-NOV-89
     =DEFAULT6         $C1       65  30-JUL-11
```

## Disk 2GS032

```
/LIBRARY.32/
   =MINES.SHK          $E0      717   4-MAR-90
   =COPYKILLERS.SHK    $E0      170   4-MAR-90
   =WOZ.SHK            $E0       90   4-MAR-90
   =FETUS.SHK          $E0      587   4-MAR-90
```

## Disk 2GS033

```
/LIBRARY.33/
   =CHIPS.DIPS         DIR         1   4-MAR-90
     =CHIPS              $B3      131  29-OCT-89
     =CHIPS.AND.DIPS     $CA        4   1-OCT-89
     =CHIPS.DOC          TXT        5  10-NOV-89
     =DATAFILES          DIR        2   4-MAR-90
       =CHIP               BIN     34   1-OCT-89
       =CHIPS.PIC          $C0     14  25-OCT-89
       =CHIPSDESIGN.PIC    $C0     16   1-OCT-89
       =DIPDEAD            BIN      9  18-SEP-89
       =LEVEL1             TXT      4  29-OCT-89
       =LEVEL2             TXT      4  29-OCT-89
       =LEVEL3             TXT      4  29-OCT-89
       =LEVEL4             TXT      4  29-OCT-89
       =LEVEL5             TXT      4  29-OCT-89
       =LEVEL6             TXT      4  29-OCT-89
       =LEVEL7             TXT      4  29-OCT-89
       =LEVEL8             TXT      4  29-OCT-89
       =LEVEL9             TXT      4  29-OCT-89
       =MAGCHARGE          BIN      9  19-SEP-89
       =MAGFIELD           BIN     12  18-SEP-89
       =NEWROBOT           BIN     38  22-SEP-89
       =ROBOTDEAD          BIN     26  19-SEP-89
   =WARGAME            DIR         1   4-MAR-90
     =GAMEDATA           TXT      21  25-AUG-88
     =AGINCOURT.WAR      TXT      24  25-AUG-88
     =CRECY.WAR          TXT      24  25-AUG-88
     =WAR2PLR            $B3     229  25-AUG-88
     =WARGAME.DOC        $B0      46  25-AUG-88
 =ALZAN              DIR         1   4-MAR-90
   =ALPHA.C            BIN       4  30-JUN-87
   =RAMPAGE.3.5        $DD     147   7-OCT-88
   =ALZAN.G            BIN      66   8-JUL-87
   =INIT.C             BIN       1  29-JUN-87
   =DCGS2.C            BIN       1  30-JUN-87
   =RAMPAGE            $DD     147   7-OCT-88
   =CLEAR.C            BIN       1  30-JUN-87
   =ALZAN.I            DIR       1   4-MAR-90
     =IMA                DIR       2   4-MAR-90
       =B                  BIN     14  10-JUN-87
       =C                  BIN     14  10-JUN-87
       =D                  BIN     19  10-JUN-87
       =E                  BIN      8  13-JUN-87
       =F                  BIN     11  13-JUN-87
       =G                  BIN     11  13-JUN-87
       =H                  BIN     21  13-JUN-87
       =I                  BIN     20  13-JUN-87
       =A                  BIN     13  29-JUN-87
       =J                  BIN     27  30-JUN-87
       =K                  BIN     19  30-JUN-87
       =L                  BIN     25  30-JUN-87
       =M                  BIN     23  30-JUN-87
       =N                  BIN     23  30-JUN-87
       =O                  BIN     27  30-JUN-87
       =P                  BIN     16  30-JUN-87
     =S                  DIR       1   4-MAR-90
       =S0                 BIN      1   8-JUL-87
       =S1                 BIN      1   8-JUL-87
       =S3                 BIN      1   8-JUL-87
       =S2                 BIN      1   8-JUL-87
       =S4                 BIN      1   8-JUL-87
       =S5                 BIN      1   8-JUL-87
       =S6                 BIN      1   8-JUL-87
       =S7                 BIN      1   8-JUL-87
       =S8                 BIN      1   8-JUL-87
       =S9                 BIN      1   8-JUL-87
     =IMB                DIR       1   4-MAR-90
       =A                  BIN     16  30-JUN-87
       =B                  BIN      6  30-JUN-87
       =C                  BIN      9  30-JUN-87
       =D                  BIN     12  30-JUN-87
       =E                  BIN     13  30-JUN-87
       =F                  BIN     22  30-JUN-87
       =G                  BIN      9  30-JUN-87
       =H                  BIN     10  30-JUN-87
   =STARTUP            BAS         1  30-OCT-8
 =PATCHES.SHK        $E0      129   4-MAR-90
```

## Disk 2GS034

```
/LIBRARY.34/
   =TNOTES.JUL.SHK     $E0      249   4-MAR-90
   =TNOTES.SEP.SHK     $E0      375   4-MAR-90
   =TNOTES.NOV.SHK     $E0      290   4-MAR-90
   =COMPRESS.SHK       $E0      566   4-MAR-90
```

Public Domain disks may be freely distributed and used. ShareWare disks can be used for a trial period only and destroyed (or passed on) if you do not use them. If you continue to use these programs you must pay any royalties due directly to the author. If you have difficulty obtaining dollars, American Express cheques may be used in payment.

Order disks from:
Apple2000
PO Box 3
Liverpool
L21 8PY

5.25 disks at £4.00 and 3.5 disks at £4.50 each or save £5 with ten 3.5 disks for only £40.00

# American Memories

## Elizabeth Littlewood recently went to the States and sent us this report

There was a letter in a recent issue of Nibble Magazine (December 1989) from a couple in Australia complaining about the difficulty there of obtaining business software for the Apple II (and especially IIGS programs) as it seems that the dealers were claiming that only the Mac was for business. The writers had some things to say about the possible problems incurred when ordering software by mail especially when from overseas. They wondered if this problem was the same for all countries outside the States, so I assume the writers thought that buying software was easy in the States, as I did until recently.

Earlier this year (January) I had the opportunity to visit the States for 10 days and fondly imagined that here was my opportunity to go shopping for all that nice IIGS software just waiting in the friendly local computer stores. I went as far as mentioning the trip to a couple of friends in case they should want me to do some shopping for them too. How disappointing it all turned out to be!

Armed with some addresses in advance and sitting down with Yellow Pages when I got there, I had quite a list of places where I thought I would be sure to find what was on my shopping list. In fact, I ended up covering much of Manhattan in New York and a sizable area in northern New Jersey, driving in fact so far West that I crossed the Delaware into Pennsylvania but it was much the same wherever I went. What I found was that either there was nothing for the Apple II at all or it was allocated a couple of small shelves in the furthest away corner in the store. There were large displays of course for IBM, the Mac, Amiga and Commodore (the old 64s, believe it or not!) and the other large area was generally devoted to Nintendo games. The software that was on offer tended to be educational (for young children) such as Sticky Bear and Reader Rabbit, or games and there was not even a very good selection of these very often. Of business software there seemed to be very little and programming utilities were nonexistent.

To be absolutely certain that I wasn't missing anything, I didn't restrict the search to computer stores but investigated electronic, photographic, music and book stores, as quite often I found that these shops also sold computer software. The search as I said took place in a large city, New York, smaller towns and shopping malls in New Jersey and just about everything along the freeways that caught my eye, general computer stores and dedicated Apple dealers alike. In fact the Apple dealers were the worst places to go to as they tended to look more like warehouses full of boxes of Macs ready to be sent out with perhaps a few boxes of IIGSes in the corner rather than the friendly neighbourhood Apple store I had imagined.

I did come home with some goodies of course and that was thanks to the Egghead stores which had the best selection available. The stores were bright and cheerful and actually gave Apple a sizable share of the space with a section devoted specifically to the IIGS. It was there that I saw programs such as AppleWorks 3.0, AppleWorks GS V1.1, TML Pascal II, WordBench, PublishIt 2.0 (though I believe version 3 should now be out) and TimeOut etc. I had a chat with the manager of the store where I did some shopping, saying how difficult it had been to find what I wanted and that though I was used to this in the UK, I had imagined it to be very different in the States as I'd believed the Apple to be very popular there. He said it was very odd because the Apple was popular and he couldn't understand why there wasn't more


## More New Prices

**Castle Wolfenstein (Muse)** £15.95
The classic action-packed strategy game. Find the secret Nazi war plans and escape Castle Wolfenstein. Was $29.95

**Beyond Castle Wolfenstein (Muse)** £16.95
Just when you've escaped Castle Wolfenstein, Muse introduces another game to capture your imagination. Plant a bomb in the Fuehrer's Berlin bunker and escape before it explodes! Was $34.95

**RobotWar (Muse)** £16.95
Teaches the basics of computer literacy and sharpens creative programming skills. Whether you are a beginner or an accomplished programmer, RobotWar will prove to be fun and challenging. Program your robot and then test it out on the battlefield with up to four other robots. Was $39.95

**Know your Apple (Muse)** £16.95
Learn about your amazing Apple computer with animated graphics, music and voice. Especially for new users, it is the first program you should own. Was $34.95

**Know your Apple //e (Muse)** £16.95

**Know your Apple IIGS (Muse)** *£29.95

**SuperText Professional (Muse)** £27.95
Our best-value word processor suitable for 48K ][+ &/up. Makes all your writing easier. Ideal for the student, businessman or novice computer owner. SuperText's on-screen instructions and simple commands allow you to quickly create more professional looking correspondence. ADVANCED FEATURES INCLUDE:- On-screen instructions and formatting - 80-column display - disk storage & retrieval - automatic page heading - page & chapter numbering - automatic word-wrap - single key commands - unlimited document size - multiple file search & replace - copy, save, or delete blocks of text - split screen - math mode - was $175.00

**Form Letter (Muse)** £19.95
Send a personalised letter to everyone on your mailing list. For SuperText. Only 48K required, - was $100.00

**The Voice (Muse)** £16.95
The Number One talking disk for the Apple - Learning is fun when your Apple talks back, and it can with The Voice! Easy to use and a favourite for kids of all ages. 48K - was $39.95

**Titan Empire (Muse)** £14.95
Arcade game that was $34.95

**Caverns of Freitag (Muse)** £14.95
Your mission as a Thechu Warrior is to seek out and slay the evil dragon Freitag who lives in the caverns. You'll encounter many obstacles - monsters, robots, wizards - before you'll find Freitag. Good luck! Only needs 48K - was $29.95

## More New Software

**Family Software Library (Broderbund)** *£89.95
Three award-winning programs in a single package:
1] Where in Europe is Carmen SanDiego? - an innovative program that teaches geography and social studies in the form of an exciting detective chase. 2] Type! - a highly personalised program for learning basic typing skills.
3] Bank Street Writer Plus - an advanced version of the immensely popular word processor which includes a spell-checker, thesaurus, and hard disk compatibility. Makes an ideal starter kit. Requires minimum 128K //ec

**House-a-fire (E Nelson)** *£39.95
Learn about fire safety and prevention. A game for the entire family. You, a fireman, must learn to put out fires. Contains 13 topics such as heat energy, types of fires, and entry & exit from a burning building.

**Print Magic 3.5 (Epyx)** £59.95
At last, a 3.5" version of this excellent program. A fun & powerful tool that lets you create cards, certificates, leaflets, stationery, and banners. Also allows any portion of your design to be reversed, making it ideal for printing T-shirts with our heat-transfer ribbons. Features include: total page flexibility allowing multiple graphics & multiple text blocks in different fonts to be placed absolutely anywhere you like. (Print Shop users will jump for joy!). Includes a complete set of paint tools for designing your own or modifying existing graphics. Includes a wide variety of fonts, borders, and graphics. Uses NewsRoom & Print Shop graphics, and also uses Fontrix fonts.

## More New Prices

**Print Magic 5.25 (Epyx)** *£40.00

**ProSEL-8 (G Bredon)** *£40.00

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All prices include VAT, & *-prices also include UK p&p. E.& O.E.

available. He thought that they, Egghead, did quite a good job stocking what they did (and I agreed) and hoped that the trickle that existed at the moment for the IIGS might develop into a steady flow. Nevertheless it seems that in the States if you want

software for your Apple you are better served by using a mail order service much as the situation is here and always has been from the early days of companies like Pete & Pam to today's such as Holdens, Bidmuthin and MGA.

Of course, looking down the lists of the US mail order companies, one can see that there is much more by way of software, business, utilities, educational and games, than is stocked even by the good stores such as Egghead so it is not really a question of there being nothing available. I don't think that one can expect a store to give much space to Apple programs however if they don't feel that the machine is being positively marketed. I've heard the rumours about a new IIGS coming out and if that is marketed properly then perhaps things might change, but I don't exactly remember the IIGS being especially pushed when it first appeared, so I'm not altogether hopeful.

I haven't said anything about hardware because there wasn't any. One Apple dealer offered to order a TranswarpGS for me if I paid first and forfeited all rights to any possible refund no matter what might happen. The wait time was also longer than I had to spare so I of course declined.

As I said, I managed to buy some things that I wanted but it was mostly a question of making phone calls except that they didn't cost me as much as the usual transatlantic call. It most certainly wasn't a case of "Honey, when you're picking up the groceries, stop in at the computer store and get that new GS program I've heard about!"

**E.E. Littlewood**

# New Apple II SCSI Card

## A new and faster SCSI Card has just been announced from Apple, this report has come from CompuServe

APPLE ANNOUNCES NEW APPLE II HIGH-SPEED SCSI CARD CUPERTINO, California– March 15 - 90

Apple Computer, Inc. today announced a new high-speed card that moves information up to 10 times faster between Apple II personal computers and peripheral devices, such as hard disks and CD-ROM drives, at no extra cost. The new Apple II High-Speed SCSI Card provides the fastest data throughput available for Apple IIe and Apple IIGS users, and is compatible with all small computer system interface (SCSI) peripherals "We continue to respond to the needs of our education, consumer and small business customers to enhance the performance of the Apple II line," said Randy Battat, vice president, worldwide product marketing. "This high-speed card, together with recent product announcements including new Apple II system software and video overlay card, make the investment in Apple II personal computers even more valuable." Customers who use the new Apple II High-Speed SCSI Card with a SCSI peripheral extend their computer's performance. For example, customers using large applications stored on a hard disk drive, such as AppleWorks GS, or any large files, will see a significant speed improvement when launching programs, as well as opening and saving files. The larger the application or the larger the file results in the greatest speed improvement.

**Features and Benefits**

The new Apple II High-Speed SCSI Card provides faster data transfer primarily because of a new feature called direct memory access (DMA) data transfer. Data is transferred directly between the computer's memory and the SCSI peripheral, with minimal interaction from the computer's microprocessor. The result is improved data transfer performance. With the new high-speed card, data transfers at a rate of up to 1MB per second on the Apple IIGS computer, and at a rate of up to .5MB per second on the Apple IIe computer. In addition to DMA, the SCSI manager and firmware have been improved and also contribute to the increased performance.

**Compatibility**

Compatible with all SCSI peripherals, the Apple II High-Speed SCSI Card requires only that device-specific applications and drivers be installed on the system. The card ships with drivers and applications for hard disk and CD-ROM drives, allowing users to take advantage of these devices immediately.

Device drivers for the tape backup drive and scanner will be made available to developers, and users will be able to take advantage of these devices as applications are developed. In addition, the new card enables users to connect as many as seven SCSI peripherals to their computer.

**Features**

Another feature of the card is an onboard terminator, which simplifies setup when connecting SCSI peripherals to the computer. Previously, the Apple II SCSI Card required users to understand rules regarding placement and quantity of terminators between SCSI devices. With the new card, users simply place one terminator at the end of the chain of SCSI devices. The Apple II High-Speed SCSI Card also includes improved hard disk utilities. These utilities make it easy to handle hard disk management tasks such as data backup, disk partitioning and disk verification. The partition and verify utilities take advantage of the improved firmware commands for hard disk drives. The backup utility is now able to handle the resource forks that are part of the IIGS files. Because these are ProDOS utilities, they can be used by both Apple IIe and Apple IIGS users.

**System Requirements**

The Apple II High-Speed SCSI Card works on an Apple IIGS computer or an Apple IIe computer with a 65C02 microprocessor. The Apple IIGS requires a 3.5-inch disk drive, while the Apple IIe requires either a 5.25- or a 1 3.5-inch disk drive. Both require a device with a SCSI port to be attached to the new SCSI card.

# InSyder

## Dave Ward meets the InSyder and runs his Apple II with a hidden drive!

The InSyder is an Apple // first by Cirtech. It is a hard disk drive on a card that will fit into any slots (1-7) in Apple ][ plus (64K), Apple //e and the Apple IIgs. MSDOS machines have had such devices for many years but the Apple // users have had to wait until now. Was it worth it? Well let's see :-

The InSyder is available in two sizes: 20 megabyte and 40 megabyte. We were loaned a 20 megabyte card for a few days for the purposes of this review. The InSyder is really a SCSI card with a disk drive bolted onto it. The unit arrives in a large well padded box together with:-

1) SCSI users manual.
2) InSyder Technical Specification.
3) Fixing kit for DB-25 connector into back panel of computer.
4) 3.5" diskette containing GSOS and ProDOS 8 support for the InSyder.
5) 5.25" diskette with InSyder support and CP/M and DOS3.3 too.
6) Registration card.

**Installation**

This is a very simple process FULL STOP. After reading the manual very carefully you'll probably find it a little too helpful. This caused me some confusion and wasted time messing with link pins on the SCSI part of the card. Of course read the manual carefully, switch the machine off, earth yourself, carefully remove the card from it's anti-static bag and then put it into a free slot, preferably slot 7. Put the machine back together, switch on and everything should work just fine. I've tried this InSyder card in following machines by just taking the card out of it's bag and putting it into a free slot :-

1) Apple IIgs (3 machines) slots 1,2,6 and 7 with perfect results, all you will need to do is to change the control panel to YOUR CARD in the particular slot you choose. Both GSOS and ProDOS 8 work perfectly.

2) Apple //e enhanced (2 machines) slots 2,4,5,6 and 7 all giving perfect results with ProDOS 8.

3) Apple //e without enhancement (1 machine) slots 5 and 6 again giving perfect results.

4) Apple ][ plus 64K (1 machine) slot 6 which gave perfect results.

In practice you may need to put the card into a particular slot for best results but we'll discuss those points later.

The InSyder card is a wee bit wider than a single slot in all Apple // computers and will, therefore, balk the next higher slot. This could be a real nuisance which Cirtech have cleverly minimised by allowing the disk drive to be easily unbolted and replaced differently so that it balks the next lower slot instead! Useful in an Apple IIgs if you want the card in slot 7 and you have the memory expansion card in it's special slot.

When you switch your machine on the drive does not start up immediately but waits until the first access is made to it. Start up time is around 5 seconds and you don't get 'device not connected' message like you do with other drives. This unusual feature is even more noticeable when you switch on the computer and boot from another drive because the first time you access the InSyder disk, which could be hours later, you hear it start up!

The InSyder disk comes ready formatted as a ProDOS volume named /INSYDER/ but devoid of files. On an Apple IIgs you should install System 5.02 or ProDOS 8 as you wish. On other Apple // computers you can install ProDOS 8 or use the 5.25" InSyder support diskette to setup Pascal DOS3.3 or CP/M.

ProDOS 8 on all machines and GS/OS, System 5.02, will recognise the InSyder even though there are no specific drivers installed; you can even boot up from the InSyder without the presence of the drivers. This makes life easier when you are installing and setting up your InSyder drive. You can then install any drivers at leisure.

**How fast is the InSyder?**

Being based upon a 2.5" disk drive one would expect faster access times and tests indicate that the InSyder is about 30% faster than the Cirtech Diamond hard disk drive. A typical Apple IIgs computer with system 5.02 installed on the InSyder will boot up in about 20 seconds although this will increase if you have desk accessories etc. This boot up time was reduced to 17.5 seconds by the presence of the driver supplied by Cirtech. This is nice time saving but didn't cushion the shock when I copied an 800K file from a subdirectory to the main volume:

Without InSyder driver this took 67 seconds. With the InSyder driver installed it was reduced to 32 seconds.

**The Manuals:**

Since the InSyder is really two Cirtech products; an InSyder SCSI card and an InSyder hard disk card which have been bolted together you get two manuals. The InSyder SCSI Interface card manual and the InSyder Technical Specification.

**The SCSI Interface manual:**

This describes the card it's installation, how to interface it with ProDOS, DOS3.3, Pascal and CP/M and the usual troubleshooting and technical information in detail; it's this great detail about the link pins that caused the slight confusion I referred to above. If yours is the only SCSI device in the machine then there is no need to bother with this. The 5 pins allow one to change the SCSI ID number which must be unique 0-7 and two other pins allow you to have a ProDOS or Fast mode.

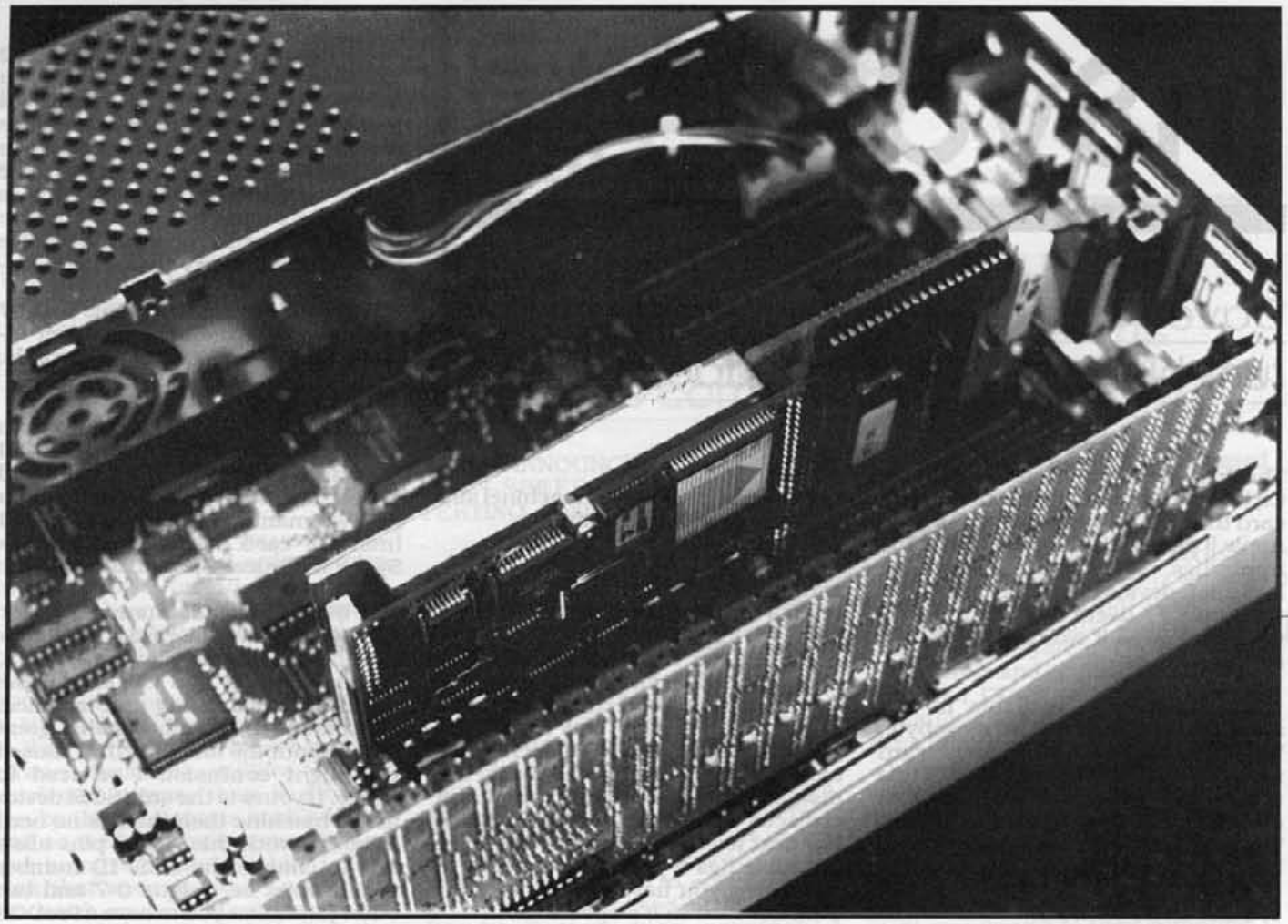
The card has a DB25 connector which can be bolted to the back panel of Apple //e and Apple IIgs; it's easier in an Apple ][ plus as the ribbon cable passes over the back panel and is crimped by the lid when you replace it. To this DB25 connector you can attach other SCSI disks and large disks could be shared by more than one Apple // computer using the Cirtech Multi-User system. With a spliced ribbon connector you can share the whole disk with other computers which can read and write at the same time!! Please note that your InSyder disk can only be accessed by the computer in which it resides.

The card also has another nice feature; a parallel printer port. I couldn't test this but it looks to be a very useful feature which we will look at later.

You may format the InSyder under CP/M and DOS3.3 but the manual rightly suggests that these should be made as partitions in a ProDOS formatted disk as these two older system cannot utilise even a small portion of the total disk space. Of course, Pascal 1.3 and Cirtech's own CP/M plus can use the whole 20 megabytes, however, most users will be best considering the ProDOS formatted disk with partitions as the best option.

**InSyder Technical Specification:**

This manual supplies all you need to know about the InSyder disk. It contains diagrams showing the two



positions for bolting the disk to the SCSI card. The disk employs a novel off-disk head parking technique which allows a non-operating disk to resist 100G force; I couldn't bring myself to check out this feature though. The 5 second start up time is amazing as most other disks are at least three times as long and give 'NO DEVICE CONNECTED' errors until they are ready; InSyder makes the system wait until it's ready!

The InSyder disk when attached to the InSyder SCSI card measures 187mm long by 72mm high and 30mm thick; it is this latter dimension that makes it overhang another slot. The card by itself is a mere 65mm long, 72mm high and 17mm thick, with just 3 chips. Cirtech cards follow the Woz and are small contain as few chips as possible and run cool. Another advantage of the card being small is that there is plenty of space to allow free air movement to keep the whole machine cool. Long cards tend to compartmentalise the machine leading to some areas not being cooled properly even with a fan installed.

**Software support:**

Both the 3.5" and 5.25" diskettes contain support programs such as drivers for ProDOS 8 and GS/OS which are only needed if you want the extra speed and their partitioning capabilities. There is also support for programs such as AppleWorks which don't like a printer port in a slot which looks like a storage device! The 5.25" diskette contains further support for CP/M versions 2.xx and DOS3.3. The 3.5" diskette contains the following support programs:

```
/SC
  *BASIC.SYSTEM
  *PLUS.0
  *SYSTEM
  *STARTUP
  <ProDOS 8 drivers>
  *SCSI.SYSTEM
  *DRIVER.SYSTEM
  <Hard disk utilities>
  *FORMAT
  *SCSI
  *FIX.BAD.BLOCKS
  <GS/OS drivers>
  *INSYDER
  *INSYDERPRINT
```

When the GS/OS drivers are not present the device number for the InSyder would be the helpful .DEV4 !! With the drivers present you would see something like the following from a ProSel device listing:

```
1       .SCSI2_DEV1
2       .APPLEDISK3.5A
4       .INSYDER6_DEV#1
```

This even shows that the InSyder is in slot 6!

**In which slot should InSyder go?**

In the Apple //e and Apple ][ (64K) plus computers slot 7 would be ideal since the disk would automatically boot when the machine is switched on. Slot 6 works fine, too but most users will have 5.25" disk ][ drive card in that slot. All the other slots can be used except slot 3 which will have an 80 column card in it. When placing the InSyder in slot 7 care should be taken to ensure that the ribbon connectors in slot 6 are not abraded by the sharp solder joints on the SCSI card of the InSyder. Problems may also occur in an Apple ][ plus where a card is placed in the games port which can interfere with InSyder in slot 7.

In an Apple IIgs slot 7 is also a good slot but you will need to unbolt the drive and place it the other way round so that it doesn't interfere with the memory card. You won't be able to use slot 3 (screen), slot 4 (mouse) or slot 5 (3.5" disk drive card). If you use GSOS a lot slot 6 is also a good choice because with the constant polling of drives by GSOS there is a good incentive to remove the 5.25" disk card. If the 5.25" drives are daisy-chained to the back of the 3.5" drive slot 6 is an even better choice since you can switch out the InSyder when you

want to use the 5.25" disk drive.

**Conclusion:**

The InSyder is a fast very easy to install and unique device for all Apple // computers with slots. Yes I think the wait has been worth it.

**Prices:**

20 Megabyte InSyder £488.00 + VAT 40 Megabyte InSyder £588.00 + VAT

Although the 20 Megabyte InSyder is available I was informed that the 40 Megabyte version would not be available at the time of this review it may well be available by publishing date.

**For InSyder information contact :-**

The InSyder is manufactured by:

Cirtech (UK) Limited Currie Road Industrial Estate Galashiels Selkirkshire TD1 2BP Scotland

Telephone: 0896 57790

**For InSyder dealing contact:**

Bidmuthin Technologies Ltd. Brent House 214 Kenton Road Harrow Middlesex HA3 8BT

Telephone: 01-907-8516 Facsimilie:01-907-4398

Holdens Computer Services The Mansions Chapel Lane Longton Preston Lancashire PR4 5EB

Telephone : 0772-615919 Facsimilie: 0772-615512

**Dave Ward**

# Believe it or not Department

The following is a direct, word-for-word reproduction of a recent IBM 'Service Support' announcement. (Really!)

ESD PRODUCT SERVICE SUPPORT
SUBJECT: NEW RETAIN TIP

| | |
|---|---|
| Record number: | H013944 |
| Device: | D/T8550 |
| Model: | M |
| Hit Count: | UHC00000 |
| Success Count: | USC0000 |
| Publication code: | PC50 |
| Tip key: | 025 |
| Date created: | 089/02/14 |
| Date last altered | 089/02/15 |
| Owning B.U.: | USA |

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# The Nibbler

**Adventures with Microtech**

I have now been using the Microtech Cartridge drive for some time now and have grown to love it. The main problem I am having is to stop myself putting everything onto the cartridges as it is leaving me with mounds of old disks!

Making some speed tests on the unit came up with a quite reasonable 42ms access time. This is not as fast as some drives that are around, but fast enough for most purposes all things considered. I have been using the drive both on the Macintosh and the Apple II. On the Mac of course it is just daisy chained from the SCSI port with all the other units. The ID should be set as '0' if at all possible, and with this ID it can be formatted as the boot drive without any problems at all. The utilities disk comes with a small startup file to recognise the device. This is not necessary if you are going to boot from the drive, but you might need it if you are using the Microtech as a second drive. It does not seem to cause any problems with anything that I can tell.

On the Apple II, the device can be run either from the AMR SCSI card, or from the Apple card. The only advantage of the AMR card seems to be its own special partitioning. This will allow you to use the full 42mb from ProDOS 8. If you have partitioned with the AMR card then you will not see the second partition from either P8 or GS/OS on any other SCSI card. If you are only going to run the drive from a IIgs under GS/OS then the Apple SCSI card is quite sufficient, as of course GS/OS has its own variety of partitioning software!

A word here to those who would like to daisy chain multiple drives from their SCSI card on the Apple II, you will only be able to see two devices as Drive 1 and Drive 2 from any standard slot. The IIgs will see more drives of course if you use the Smartport in Slot 5, but this does not apply to devices in the 'Your Card' position. A SCSI device cannot as yet be hooked up to the back of the standard drives!

Irene tells me that the Microtech drives are now in stock at Apple2000. We are supplying these at £975 inclusive of VAT and P&P, and the cartridges at £94 inclusive. This sounds a lot, but remember that each cartridge is 42mb and is the equivalent of 52 floppies! At an average price of £12.50 a box, this compares with around £65 for the same storage in floppies. Backup to what is a standard hard disk is much quicker and easier than to floppy. So think of the time saved as well.

Apple have just launched a new SCSI card (see Page 34). It is too early yet to know if this will bring any problems. It is well known that DMA can cause problems with other interface cards, especially comms ports.

**Bidmuthin Bytes**

Huw Price at Bidmuthin tells me that they now have the full release pack for GS/OS System 5.0.2 available. The manual is good and thick he says!

He also tells me that the latest IIgs computers to be supplied from Apple will have the new GS+ motherboard released last autumn. These are the ones that have the full memory onboard and so do not need the extended memory card to run GS/OS. The price is the same as before, so it is a sort of reduction considering that you do not need the memory card. The new part number is A0012B/A.

They now have the Ultramacros for AppleWorks 3.0, Graph for 3.0, ReportWriter and so on. Check them for the latest prices. Do not forget to mention that you are an Apple2000 member, they will give you a discount for your trouble!

Finally Huw tells me, they have some items in their storeroom to clear. These are the Apple Pascal Numerics, Standard Apple Numerics Environment (SANE) all of the Workbench series and some Mouse Desks for the //e and //c. These will cost you £15 each!

**CompuServe/Forum**

The big news this issue is of course the special offer to join CompuServe/Forum FREE. Many of you I know have asked me over the years how to get on to this system and were horrified at the costs of actually getting over the water to the States.

The CompuServe costs are not high in themselves, but the costs of using IPSS to get there were prohibitive. The real killer was the 'volume' charge that IPSS make. If you only browsed slowly, this did not cost too much, though the time charge clocked up pretty fast by itself. But if you decided to read a large file the volume costs shot up. The worst case of all is when you decided to download a file. Any form of protocol transfer effectively means that you have continuous data travelling in both directions as far as IPSS is concerned. This meant it could cost anything up to £70 or more an hour to use IPSS and this does not include the $12.50 an hour CompuServe charge! The maximum speed that IPSS can handle is for most people only 1200 baud. Even if you could go faster the volume charge shot up with it.

Now we can access through the Istel network at any speed up to 2400 baud and with no volume charge. The total cost of the network and CompuServe is therefore only $22 an hour (approximately £14).

At 2400 baud and with the best conditions, you can download about 800k an hour. This will now cost you only £14. Under IPSS at 1200 baud this would have taken two hours and would have cost up to £160 in IPSS charges and CompuServe charges. I think the figures speak for themselves and show why all at Apple2000 are so excited about the special free offer to join the world's largest personal information service.

**The Nibbler**

# InSyder

# A new dawn

**The dawn of a new decade heralds the arrival of an exciting new concept in hard disk technology. In true future spirit, Cirtech's pioneering design team brings you InSyder, a *slot-in* hard disk card for the Apple //.**

InSyder simply plugs into a standard slot in the Apple //e or IIGS – there's NO power supply replacement, NO noisy fan and NO awkward cables! InSyder is fully compatible with GS/OS, ProDOS and the major operating systems. And with direct hardware access and full disk caching, InSyder supplies the performance demanded by the serious Apple user.

Available in 20 and 40 Megabyte capacities, InSyder also provides a full feature SCSI port, supporting external devices. You can even share an external hard disk with up to seven other users. An optional Printer Adaptor also allows you to connect a parallel printer without losing valuable slot space!

InSyder's superior specification provides the totally integrated solution for the needs of the dedicated Apple user.

## InSyder – the dawn of the future!

InSyder 20 Megabytes – £488.00 InSyder 40 Megabytes – £588.00
(Prices exclude VAT)

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**$ Raster Ops** 19" 8 bit SE30 ..... 3295.
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**(we hope)**

MacLine

# MacChat

## Norah Arnold looks at Claris™ CAD 2.0 and other matters.

**Desk Jet with Grappler**

One of our members, Alan Finn, uses a HP Desk Jet Plus printer interfaced to his Macintosh by a Grappler LS Interface. This makes the HP Desk Jet printer look like an ImageWriter LQ to the Macintosh. When using this arrangement the user needs to select LQ in the Chooser.

Alan found that when he used the three fonts which were supplied with the Grappler LS Interface the Desk Jet printed them very well indeed. Any other fonts which he used were printed very crudely on the Desk Jet.

However this was a case where Tony Dart and the Macintosh Hotline came to the rescue. Alan was advised that the Desk Jet would print any font via the Grappler as long as the font was in the system folder at four times the point size required.

Alan tried this out and found that it was correct. If 24 point size was in the system folder, then he was able to print 6 point perfectly. Now Alan is on the look out for large font sizes. The Macintosh Public Domain Library offers Disk 13 Fonts 3, Large and Artistic Fonts, containing Basel 48 point, Rome 36, Leavenworth 36, Peignot Bold 48, Black Shadow 48, White Shadow 48, and the ever popular New York at 72 point.

**ScreenSnap 2.2**

ScreenSnap 2.2 is a shareware application that lets you take a snapshot of any rectangular portion of the Macintosh screen and save it in a window for later use. Once created, the snapshot can be inverted, moved, saved as a PICT file, copied to the Clipboard (and pasted into applications such as HyperCard, MacDraw, or WriteNow), printed, or just left hanging around on-screen for reference. Because ScreenSnap uses PICT format for its files, it can read the output of most drawing programs, and be used as a PICT file viewer. ScreenSnap handles colour, multiple monitors (including snapping across monitors), and multiple screensnaps. A screensnap can be dragged from any point in its window. ScreenSnap 2.2 is useful in many situations. For example:

- When reading electronic mail, an important message can be snapped for later reference.
- When running a program, important results can be snapped and printed instantly.
- When programming, screen output can be snapped and saved for later reference, for user interface mock-up, or for pasting into a document.

The previous version of ScreenSnap was called SnapTM 2.1. ScreenSnap 2.2 adds the following to Snap 2.1:

- an expanded, scrolling Help screen with an added button to print it,
- the ability to set the default screensnap size,
- a "splash" screen that automatically closes when the program initialization is completed, so the user does not need to dismiss it,
- improved memory management (safer and more efficient),
- speed improvements and
- response to the 'help' key on the extended keyboard.

It's also cheaper. The Shareware fee is now $11 against the $17 asked for Snap 2.1.

For more information contact Knowledge Source, Inc.,
814 Fremont Street, Menlo Park, CA 94025-5016
(415) 326-1374

**CLARIS CAD 2.0**

Claris Corporation have introduced Claris™ CAD 2.0, the new version of its best-selling professional design and drafting software for the Macintosh. According to press information released by Claris, the new version offers more than 100 powerful new features, additional support of industry drawing and dimensioning standards and major enhancements to the user interface.

Claris CAD 2.0 provides Macintosh users unparalleled ease of use and two-dimensional (2D) drawing accuracy. Among the program's unique enhancements is the Graphic Guide, an intelligent capability that thinks a step ahead of the user. The Graphic Guide tracks and interprets the user's mouse motions, and automatically guides the user to accurate drawing and editing. For example, when a user is trying to draw a tangent, perpendicular, or projection from one view to another, Graphic Guide anticipates the user's intent from the cursor movements, and automatically guides the user to complete the task, freeing the user from having to make precise mouse placements. And the user can override the Graphic Guide at any point. With the Graphic Guide new users can quickly learn computer-aided design and drafting and experienced CAD users gain a significant increase in productivity.

Graphic Guide advances the user interface from its role as a passive environment to an active partner which greatly facilitates awkward and complex tasks. By intelligently anticipating the user's intent, Graphic Guide helps navigate through complex tasks. For design and drafting, Graphic Guide means a more natural metaphor, greater ease of learning and higher productivity.

"Claris CAD is now the best-selling Macintosh 2D CAD software in the world, setting new standards of power and accessibility", said Steve Johnson, Claris UK Managing Director.

"This latest version offers even more features but with a powerfully intuitive approach that we urge potential customers of CAD, or even those seeking precision drawing capability, to see demonstrated".

**New Features and Benefits**

With over 100 new features, Claris CAD 2.0 offers design and drafting professionals unprecedented ease of use and comprehensive 2D functionality. For example, new mechanical design and drafting functions include the addition of geometric dimensioning and tolerance symbols, which meet ANSI Y14.5 drafting standards, and ordinate dimensioning capabilities that simplify dimensioning from a common reference point.

New architectural, engineering and construction (A/E/C) design functionality includes enhanced support of dimensioning and sheet size standards, and adds "intelligent wall" capabilities for creating, reshaping, dimensioning and filling wall objects.

The new version also incorporates Claris XTND architecture, which allows third-party developers to create applications, drawing analysis utilities and file conversion utilities for exchanging other graphic file formats with Claris CAD 2.0.

Claris CAD 2.0 also adds many general tools and utilities such as object attribute export capabilities that let users export design information to a variety of popular Macintosh database and spreadsheet applications for creating accurate design estimates, schedules and bills of materials; a selection filter that allows users to quickly select objects according to type, layering or colour; a scale option for producing exact reductions and enlargements of objects and text; a label tool that facilitates placing and editing of text callouts; easy to access floating windows that enable users to set and save preferences and customise interaction; and a point tool for indicating reference locations.

In addition, Claris CAD 2.0 also includes a context-sensitive help stack based on Claris' online HyperHelp technology included in other Claris applications and new support for A/UX 2.0, Apple's Unix operating system for the Macintosh.

"We see this new version of Claris CAD, with its Graphics Guide capability, as a significant step forward for low cost CAD," said Nigel Turner, Scientific and Technical Manager, Apple Computer UK Ltd. "Its ease-of-use will help make powerful design tools on Macintosh accessible to even more people."

**Pricing and Availability**

Claris CAD 2.0 will begin shipping during the second quarter of 1990 and will have a retail price of £675. Claris CAD 1.0 owners can purchase an upgrade to Claris CAD 2.0 for £60. Claris MacDraw 11 owners can purchase Claris CAD 2.0 for £350. The Claris Graphics Translator, which includes both IGES and DXF translators, can be purchased for £225.

Upgrades will be available from the date of shipment of Claris CAD 2.0 from authorised Claris dealers or from Frontline Distribution Ltd (telephone 0256.463344).

**Claris Adds Query Technology**

Claris Corporation announced today that it has acquired technology that enables Macintosh users to access, browse and download data from relational databases using the standard, intuitive Macintosh interface.

The "query" technology will let users transparently log onto and browse through large corporate databases, and select and download data to their local applications where the power of Macintosh can be put to work analysing, formatting and publishing information.

Claris acquired the technology from Red Brick Systems, which was known as Applications Design, Inc. (ADI) up until January. Red Brick Systems, which specialises in developing high-performance database applications for corporate environments, has sold the technology under the name Executive Query Tool (EQT).

The company said the query technology, along with its FileMaker 11 and SmartForm products and the spreadsheet technology it recently acquired from Informix, provide Claris with the foundation for a powerful, synergistic family of Information Management solutions.

Claris plans to develop a new application based on this technology by the end of 1990.

Because it runs on top of industry-standard server access protocols -CU1 from Apple, OCI from Oracle, and DB-Lib from Sybase - the query technology will let users browse and access 70 percent of all corporate databases. These include all major relational databases, including Oracle, Ingres, Sybase, Informix, RDB, and IBM's DB2 and SQUDS running on, for instance, DEC VAXs, IBM minicomputers and mainframes, and Tandem computers.

The Macintosh user thereby enjoys access to corporate data without having to learn the complex SQL programming language. The query technology generates industry-standard SQL code, which the user need not see, which then queries the database. The technology works in the same way users think about asking business questions; the combination of access to and understanding of the data available leads to a better knowledge of the user's business.

"This query technology gives the corporate Macintosh user the best of both worlds: access to the relational database, and a painless way to get that information into the Macintosh, where it can be really useful," said Yogen Dalal, Claris vice president, product development. "This tool makes the Macintosh advantage very clear in the emerging world of client-server networks."

Claris, one of the top two vendors of Macintosh software, is a subsidiary of Apple Computer, Inc. and develops, markets and supports application software for Macintosh and Apple 11 computers.

Red Brick Systems, Los Gatos, Calif., develops workstation tools which allow users access to the large amounts of information stored in corporate databases.

Claris is a subsidiary of Apple Computer, Inc. and develops, markets and supports application software for Macintosh and Apple 11 computers. For further information, please contact:

Steve Johnson, Claris UK Managing Director or Dan Rampe, Claris UK Public Relations Manager Claris International, Inc. 1 Roundwood Avenue Stockley Park Uxbridge Middlesex UB11 1BG Tel: 01- 756-0101 Fax: 01.573.4477

# Abaton 8-bit Scanner Upgrade

## We test an upgrade to the Apple Scanner which gives a 256 gray scale

The DTP explosion has changed so many things in the printing world, that it still reels from the shock! The traditional page-makeup has changed so dramatically in the last few years that a printer is now quite used to receiving a single 'bromide' holding the complete page, rather than a collection of bits and pieces held together with sticky tape and Cow gum. His process darkroom skills are being under used as the designer plays with his text, his images and makes the whole thing into a final piece of artwork on screen before he sends it to his LinoTron imagesetter. Gone are the skills of manipulating 'lith' film in the darkroom to achieve tone separation. All you now need do is to take a TIFF scanned image and with any paint package you will be able to generate whatever you want. Gone are the skills of the airbrush artist, Image Studio for instance will retouch your photograph with ease.

All this of course has been made possible by the Macintosh, its software, and the various bits of hardware that can be connected to the SCSI port on the Macintosh.

**The Apple Scanner**

Electronic scanners pre-date the DTP revolution by some years, but they were expensive machines reserved for only the highest quality work. Some two years ago we saw the first reasonably priced scanners appear for sale that we could attach to the Macintosh. These scanners were priced at around £2500. They were simple machines and would give anything from between 16 and 64 grays, only a few achieved the 256 grays necessary for smooth tonal reproduction.

Apple themselves introduced a scanner in the autumn of 1988 at a price of £1200. This was a bit of shock to the opposition who have since reduced their prices to around the £1800 mark.

The Apple scanner is an excellent device. It handles scans at 300 dpi. A line scan image can be output to the LaserWriter, which also has 300 dpi., to give a print that is as good as a high quality photo-copy. In fact I have often used it in this mode when I could not get to a copier!

However, the main limitation of the Apple Scanner was that it could only scan in 16 grays. This was fine if you had an image with high contrast or sharp detail, but an image with smooth and subtle gray tones would show a 'contour' effect as the scan tried to separate the various tones of the original. (The 16 grays example shows this effect in places)

**Enter Abaton**

Apple makes very few of its products directly. It assembles bits and pieces that have been contracted out. The scanner is no exception as it houses a motherboard made by Abaton inside the Apple box. Apart from the box, the Apple scanner is functionally the same as the Abaton 300/S scanner.

Abaton have recently released the SCAN 300/GS which is a full 8-bit scanner capable of handling 256 grays. This is more than enough to produce a high quality image. You will see advertisements for this scanner in the back pages of the Apple2000 magazine.

The heart of this new scanner is a new motherboard which is exactly the same size as the one in the old 300/S or Apple scanner. The connections are the same, and it is in fact a direct replacement for the old 4-bit board! It is therefore only a matter of changing the boards to convert your old 4-bit 16 gray scale scanner into a spanking new 8-bit 256 gray machine!

This is not a job you can do yourself however. To keep within the guarantee of both your scanner and the upgrade, the conversion must be done by a registered Apple Service Centre or by ACME the importers of the upgrade. ACME will only charge for the upgrade if you pay for the transportation costs of the scanner to them. If you are near to Chesterfield, you can take the scanner and have it converted while you wait.

**Your new Scanner**

I had the scanner I use at college converted with the 8-bit upgrade. This scanner is in daily use by 120 Graphic students who will scan everything they can lay their hands on! It is a tough test for both the hardware and the software to survive this kind of punishment. The upgrade had a few software teething problems (mentioned later) but otherwise the whole thing was quite painless.

With the scanner comes a disk of control software and a comprehensive manual. The disk includes an ABATON Scan DA, a replacement for the Apple Scanner startup program and plug-in drivers for both Image Studio and Digital Darkroom.

By replacing the Apple Scanner startup program with the new one supplied, all software that can use the original 4-bit Apple board, will work quite normally. You will of course not have access to the new 8-bit 256 gray potential. Omnipage works fine as does the original Apple Scanner program supplied with the scanner.

As before, I find that a Terminator does not seem, to be necessary if the scanner is the only device on the SCSI line.

**The ABATON Scanner DA**

The main advantage of the new software is the ease with which you can generate a scan while you are running any program. With the ABATON Scan DA, that last minute scan can be made while you are using PageMaker or Xpress.

Not only can the DA give you a

full 256 gray scale scan, but it can scan in 16 grays, Bayer and Spiral pseudo-halftone and line-art as well. Scans are made directly to disk, this is a great advantage as one of the limitations of the original Apple Scanner was the inability to scan large areas on a 1mb machine. Scans can be saved in four file formats, TIFF, MacPaint, PICT/PICT2 or EPS. Generally you will want to save in TIFF format so you have full control of the file later. However if you have limited disk space, the PICT format will compress the file dramatically.

Scanning resolution is adjustable from 72-300 dpi in 1 dot increments. If you are having awkward moire problems, this control should allow you to achieve the lowest interference pattern. The resolution can be changed independently for the vertical and horizontal direction thus allowing squeezing or expansion of the image at will. Just in case you thought that was enough, you can reverse the image tonally or directionally as well!

The contrast and brightness are changeable as well. The settings you normally use can be made into the defaults ready for the next time you need a scan.

After previewing you select the area you wish to scan either by the familiar window and cropping marks, or by entering finite measurements which match those on the rulers of the scanner itself.

The whole things is very easy to use. My only criticism is that you cannot magnify the preview to adjust the exposure controls. The preview is shown in full 256 grays so a reasonable representation is ensured.

**Image Studio and Digital Darkroom**

Plug in drivers for both of these programs are provided. Once place in the folder holding the parent program, the scanner will appear as a Menu item.

The controls are much the same for both drivers, but lack the complete range of facilities that the ABATON Scan DA has. This in practise is not a problem, as of course you can always do a scan with the DA and import the file later.

The Image Studio driver will give 16 or 256 grays at 5 fixed resolutions from 75-300 dpi. The scan is normally made directly into the program, but can optionally be saved to disk as a Virtual Scan if required.

The Digital Darkroom driver gives you the usual gray scans, line-art, and with Bayer and Spiral scans in addition. It will scan in 6 resolutions from 75-300. It also scans directly into the program.

**Performance**

The scanner works very well indeed. The Apple scanner is noisy compared with some scanners, but you soon get used that, and in fact you can quickly tell what kind of a scan it is doing by the noises it produces!

It took quite a little time to get the settings just right, but once they were adjusted, the default values came up each time.

The ABATON Scan DA shows you the size of file that you will generate. This was extremely useful in tailoring scans to fit the 800k disks the students would produce. It was quite difficult at first to explain that a full A4 page scanned in 256 grays would not fit on an 800k disk! The file that a scan that size can generate is over 8.5mb's in size! It is easy to cut down to 16 grays and cut the resolution down so the file will fit on the disk.

The shadow detail can get a little lost, but then this is also true of conventional half-tones on film. It pays to get the contrast right at the actual scan itself, as any control you give to this later usually means you lose some tones in the process.

Resolution was good, although marginally it was less sharp than the original. This of course is not a fault of the upgrade, but rather the original quality of the lens in the scanner.

16 gray scan

256 gray scan

Bayer scan

Spiral scan

Line scan

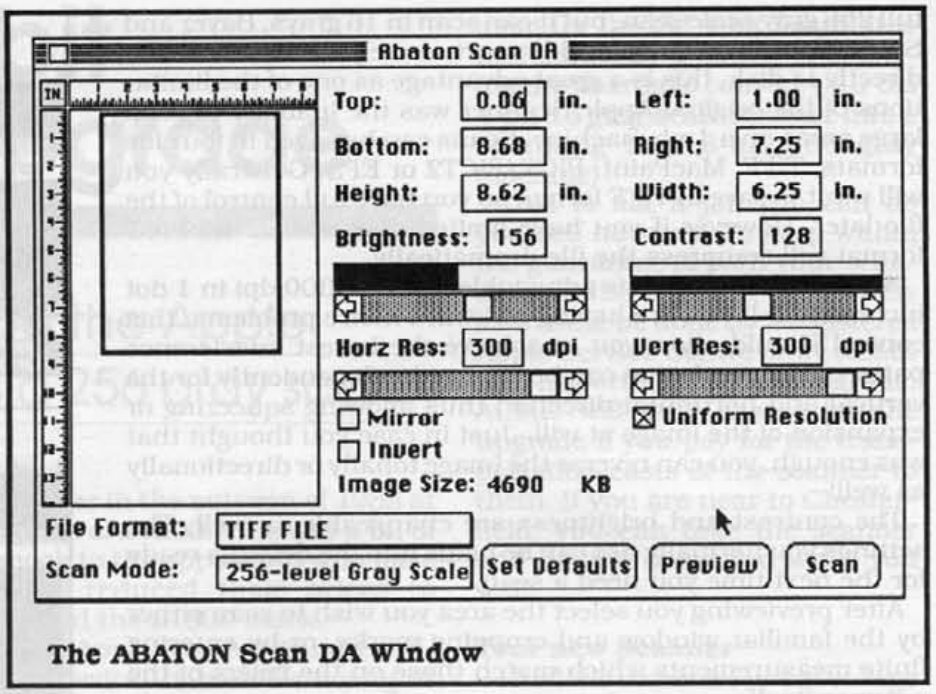
**The Complaints Department**

My first problem was simply in getting things to work at all. I had copied the files as indicated in the manual, and on re-booting was presented with a Fatal System Error. It took some time to track down the problem. By a process of elimination I discovered it was the Abaton Scanner startup program that was causing the crash. When this was removed all was well. Further elimination showed that it was a rather unusual set of circumstances that was causing the problem. I use GateKeeper for virus protection, and it was simply GateKeeper that would not let the scanner startup program run. It needed to be made an exception to GateKeeper. GateKeeper was stopping it in its tracks before the Window tools had been started up so I was not seeing the usual GateKeeper Veto dialog displayed on screen!

The next problem I found was that you must have the scanner switched on before you turn on the Mac itself. It will not see it if you switch on after you have booted the operating system. This is good practise for any SCSI device in any case, but did not seem necessary before the upgrade.

The final problem I found is more serious, as there was no immediate cure. I needed to use my PC drive the other day, and got very confused when File Exchange would not see the 5.25 IBM disk. As before, a process of elimination was carried out, and it turned out I had to remove the scanner startup program once more and re-boot for the drive to be seen. This is tedious if you use the drive very much. Something Abaton will have to look into.

None of these niggles was enough to worry me unduly. It is a pity though that they had not been discovered by Abaton earlier. Anyone reading this review will of course know about them, but for the others they may well have to learn the hard way.




**The ABATON Scan DA WIndow**

**The Examples**

I have given examples of each of the scan modes. Usually you will scan into a TIFF file. Only these files can have a half-tone easily applied to them later.

The 16 gray scale scan is the same as that achieved before the upgrade.

The 256 gray scale scan shows the results after. It may not be fully clear in the reproduction, but the 16 gray scan shows on screen quite clearly the 'contour' effect that the limited gray scale gives.

The Bayer and Spiral scans give 'pseudo' half-tones similar to that of the Apple Scan program. In practice I prefer to use a conventional half-tone from a program like PageMaker or Xpress. The advantage of these scans are that they are saved as line-art images so take up little disk space.

**Conclusion**

It was well worth the price, and well worth doing. I do not know what we would do without it now. We are able to generate full quality half-tones for output to our LinoTron. Many of the students use the gray scale scan as the start point for an illustration. After working with Image Studio and PixelPaint, the result is photographed direct from screen. One of these days we shall see a colour printer at a reasonable price that will give them hard copy as well.

The examples with this article, and the photograph of the InSyder disk drive earlier in the magazine, show what kind of quality can be achieved using the 8-bit upgrade and a LinoTron imagesetter. The scans were simply pasted into PageMaker and set up as 130 dot halftones. The output was to a LinoTron 200 imagesetter.

**Getting the Upgrade**

To obtain an upgrade, you should contact either ACME direct, or your local Apple registered dealer. One of these two will have to fit the upgrade in any case. You will find ACME's address and phone number on the inside back page of this magazine.

At the time you have the upgrade fitted, you can also purchase either Image Studio or Digital Darkroom for an extra £125 + VAT. The normal prices are in the hundreds of pounds!

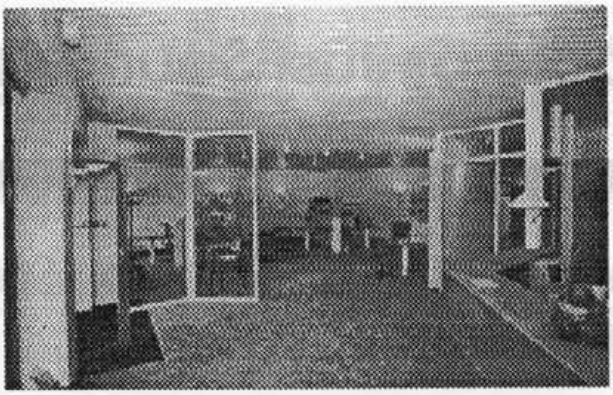
If you can get your scanner directly to ACME, they will fit the upgrade free, if you cannot deliver in person, you must pay all the shipping costs getting it to and from them.

**Ewen Wannop**

*info*

*Product* : Abaton 8-bit upgrade
*Maker* : Abataon
*Available from* :
Acme Computer
Acme House
2A Sheffield Road
Chesterfield
Derbyshire S41 7LL
*Price* : £595 + VAT + Carriage

*Value* :
*Performance* :
*Documentation* :



# Friendly Solutions at your AppleCentre℠

Celtip Computers has been in operation for almost ten years and in that time has built up an enviable reputation as the Apple™ Macintosh™ dealer in Worcestershire.

The Macintosh's legendary system of easily understood words and pictures simplifies its operation and with the full backing of Celtip's sales, support, and training facilities you can be sure of an efficient friendly solution. Come in for a demonstration today.

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# Mac IIci: Bad Apple or Just Sour Grapes?

## Martin W. Twelftree, principal of Chameleon Software, reveals his feelings about the IIci.

I joined Apple2000 soon after its start as BASUG, in January 81 and I have all the mags to prove it! Not once have I put fore-fingers to keyboard, I have always stayed in the background. Initially with an Apple II Euro Plus right up to my present system. Well, better late than never! There must be a few more like me who have never made a contribution. Come on you persons! You can only get people to talk about your 'thing', if you let us know what that 'thing' is (I think that makes sense). So here goes and I make no apologies for the content.

Ever since the Mac IIci was launched I have heard a lot of people whining about all the software that grinds to a halt on that 'beautiful' but expensive beast. Are these moaners just pouring cold custard over the new Apple? Apple says: 'software that does not run on the IIci is not following the guidelines we have laid down'. The software publishers blame Apple..... Meanwhile Joe Soap the average user (OK he has got a larger than average wallet or a different sense of priority) cannot decide if he can justify an upgrade to the new machine and whether his expensive collection of software will run on it.

So lets start the ball rolling. I have listed below those that do and those that don't crash on my set up. My system consists of a IIci 8/80 (8MB RAM, 80MB hard disk), ImageWriter II and Abaton Interfax. The System version is 6.04, nothing else will do (so far). Apart from the usual DA's I use SmartScrap and Word Finder. My INIT's consist of SUM, SAM and Interfax Control, plus the usual Apple stuff in the system folder. I know of no problems with any of the above software, with the exception of the Interfax Control which has been sorted out (see below).

**The Offenders:**

SuperPaint 2.0 crashes occasionally, suddenly the screen will display rubbish.

Think Pascal 2.0 would not run at all, but version 2.03 or 3.00 should cure that.

There were problems with Abaton Interfax driver. I could not receive fax's without the computer doing a nose dive, but the upgrade to 1.1 cured that, there is something to be said for registering software! I registered directly with Abaton in the States and that produced a faster response than anything I could do with the suppliers in this country. UK supplied and supported software is not always the best option.

Auto Mac III (alternative to MacroMaker) - this seems to work until you try to run the macros, then things go drastically astray (I cannot be sure if the IIci is to blame on this one).

Games have always been a problem on the high end Mac's. Who cares? You do? Ok let's list them as well. Anything that requires its own specially designed system version will not run on the IIci, such as:

Ancient Art of War
Arazok's Tomb
Dark Castle

**No problems so far with:**

MS Word 4.0
MS Excel 2.2
MS PowerPoint v2.00A
4th Dimension v2.0.11
Silicon Press v1.1
MORE II
SUM II
SAM
HyperCard Z1-1.2.5
SmartScrap
Wordfinder
White Knight 11.02
Okyto 1.0
Quarterstaff
Ultima III(colour not supported- change Monitors in control panel to mono)
Gauntlet (16 colours only)
Fire-Brigade (colour not supported)
Reach for the Stars

We can emulate a PC on a Mac II and run MS Dos software, so its high time we could run Mac Plus software on a Mac II. I think Apple are right, software publishers should keep to the guidelines and things would be a lot easier for the user. Is that too difficult or isn't there enough profit in it?

I hasten to add, my power supply is fairly stable I use a power filter & surge protector. The power supply is unlikely to be the cause of any of the above problems. These lists are all I can afford to try out, the rest are up to you. Is there anyone else out there who wants to add to or ammend either of these lists? Would any software publishers like to contribute? The floor is yours.

I decided that despite the rumours of crashing software I would take the plunge and gain not only a faster machine but brand new kit and all those extra features. When all the dust settles and system 7.0 hits us the IIci should turn out to be a wise move. There is no point in waiting while everything is 'just so' before you buy, you might wait forever.

# New Macintosh IIfx

## Apple Computer U.K. reveals the new Macintosh™ IIfx Computer at Stockley Park.

**20th March**
At Stockley Park today, under the banner of 'Dynamic Evolution', Apple unveiled the latest products in the Apple Macintosh family. Firmly committed to developing the line as far as possible without sacrificing existing compatibility, Apple have launched the fastest personal computer available today. In a parallel launch, they have rationalised the confusion of video display cards for the Macintosh II with three new display interfaces.

The new computer is not the IIxi that some believed would be launched, but a brand new Macintosh IIfx. It is firmly in the Macintosh evolution, but radical changes have been made inside the Macintosh II box to improve the performance quite dramatically. Looking exactly like a Macintosh IIx from the outside, this box houses a 40 mhz 68030 processor, a built in Paged Memory Management Unit (PMMU), a 68882 floating point co-processor, built in zero wait 32k SRAM cache memory, two dedicated I/O processors, a SCSI/DMA controller, built in Processor Direct Slot (PDS). It also of course has a SuperDrive floppy disk drive, 6 NuBus expansion slots and will support up to a 160 mb internal hard disk drive.

**Speed Improvements**
The speed improvement is quite dramatic. A demonstration Excel spreadsheet macro performed in 14 seconds as opposed to 34 seconds on a IIcx. This speed improvement is achieved in various ways. Firstly the microprocessor runs at 40 mhz, secondly the maths co-processor also runs at 40 mhz, thirdly the RAM is now in new fast page mode 64 pin SIMMs, fourthly there is a new 32k zero wait state cache memory architecture, fifthly a new SCSI/DMA controller speeds disk access and finally new I/O controllers speed all the serial ports and Desk Top Bus. The whole lot put together make a tremendous difference to access times and execution speeds.

**Memory**
The new SIMM packages are industry standard fast page mode 64 pin devices, note these are not the same as the current SIMMs fitted to all existing Macintosh computers. There are 8 slots as before giving a normal maximum of 8mb but with higher density packages greater memory expansion than this can be achieved.

Up to 512k of ROM on SIMM packages can be fitted. This will allow future versions of the operating system to address up to 4Gb of memory.

**Processor Direct Slot**
This new slot which is in addition to the normal 6 NuBus slots provides a high speed and direct interface for third-party hardware options.

**Upgrades**
The main board is the same size as the standard Macintosh II or IIx board. Upgrades will be available later in the year.

**Video Interface Cards**
To try and clear the confusion of video interface cards and expansions that have spread since the launch of the Macintosh II, Apple release three new cards. Both cards will drive any Apple monitor from the High Resolution Monochrome Monitor through the Two-Page Monochrome Monitor and the High Resolution RGB Monitor. The start point is the 4•8 Display card. This will give 16 greys on the Portrait display or Two-Page monitor, 256 greys on the High Resolution Monochrome Monitor and 256 colours on the High Resolution RGB Monitor. This card can be upgraded to the 8•24 Display card which will give 256 greys on any of the Monochrome Monitors and 16.7 million colours on the RGB Monitor. In addition there is an accelerated 8•24GC card which will accelerate all QuickDraw commands through a RISC co-processor handling a special version of 32 bit QuickDraw. The speed of display has to be seen to be believed!
All these three cards may be retrofitted to any of the Macintosh II series improving the display dramatically.

**Finally**
Not to be beaten by all of this, Apple have also released A/UX version 2.0. This new version of UNIX gives the full intuitive Apple desktop running within the UNIX environment. The X Window System is also available to run under A/UX as a separate module.

**Shipping**
Apple anticipate that they will be shipping the IIfx in late April. The higher specification machines should be available by May to June. The video cards will be seen in early summer and A/UX will be shipped in June. A/UX will be available on CD-ROM if desired.

**Suggested Retail Prices**

| | |
|---|---|
| Macintosh IIfx 4/F1 | £5610 |
| Macintosh IIfx HD 4/80 | £6290 |
| Macintosh IIfx HD 4/160 | £6970 |
| Macintosh Display Card 4•8 | £460 |
| Macintosh Display Card 8•24 | £610 |
| Macintosh Display Card 8•24GC | £1345 |
| A/UX | T.B.A. |

# TYPEALIGN

**by Ralph Mittman**

I will put this bluntly. I have just used what I consider to be **THE MOST EXCITING** desk accessory that I have every come across! Let me qualify that by explaining the criteria that I am using. I am a Desktop Publisher, so obviously I am skewed by this. Somebody who is a Mac spreadsheet guru would probably be more excited about a fabulous macro making DA! But The use of this DA is not just limited to desktop publishers. This is what I consider to be the most exciting part. You do not have to own a LaserWriter to take advantage of this. Your ImageWriter will print the effects created with this DA. I would be willing to bet that by June of 1990, this will be one of the biggest selling desk accessory of all time (This product requires Adobe Type Manager in order to run. That also means; if you do not have ATM, you MUST get it, if only to have it so that you can use this product). Before looking at the type effects that this DA produces, keep in mind that these effects are all created with a DA. This DA works with any Adobe "type one" font or in other words, any font that works with ATM. That also means that it has to be a Postscript font. If you only have an ImageWriter, you need to have downloadable fonts in order to use ATM and therefore TypeAlign. Remember that since it is a DA it works from within most every application and it prints to the resolution of the printer, whether it is an ImageWriter, Laserprinter, Linotronic, DeskJet or other Mac compatible printer. Now, take a look at the effects before you continue reading.

Yes, it is true. These effects were all created with a Desk Accessory! Yes, you can print these out on your Imagewriter. Yes, you can print these out on your Hewlett-Packard DeskJet. That means you can create these effects from within programs like PageMaker, Quark, Ready Set Go, Microsoft Word, Illustrator, Freehand and many, many more. At this time it is not compatible with Superpaint, Canvas and Cricket Draw.

**What does TypeAlign™ Do?**

In brief, TypeAlign™ allows you to create virtually any baseline for your type, whether it be a straight line, an angled line, a curved line or a line drawn with TypeAlign's freehand drawing tool. If that were all it did, TypeAlign would be worth twice what it sells for, but there is more.

Aside from many other features that I will tell you about, another fabulous aspect to TypeAlign is its user interface. This is probably one of the smoothest (i.e. easiest) Macintosh applications/DAs/Utilities etc. that I have seen in a couple of years. (Keep in mind, TypeAlign is a DA.) I can't really think of any other product that has a more simple and efficient interface. I guarantee this product will win awards!

Aside from being able to bind text to virtually any line, you can also do much more. Yes, you can mix type size, style, font, gray-scale and color within the same line of type. You can stretch and skew the type at virtually any angle in virtually any direction.

Yes, you CAN edit the type on screen along any path that you have created! You DO NOT have to use a dialog box in order

to input the type. Yes, you read it right, but let me type it again so that you don't miss it. Yes, you CAN edit the type on screen along any path that you have created! You are probably asking yourself right now, "you mean you can drag the text cursor along any path of text that you have created and the letters will be selected as you drag over them?" Yes, you have to see this to believe it!

To use TypeAlign you simply select it under the Apple Menu. When the TypeAlign screen appears you select what kind of line you want to draw (circle, straight line, or freehand line) from the tool palette, and then you draw the line. Once you draw the line by standard drag and click methods, you immediately start typing your text. You do not even have to select the text cursor from the tool palette. Once you stop drawing, TypeAlign realizes that you will want to start typing right away, so it automatically selects the text cursor for you. If you are typing along a path that you have just drawn and you make a mistake, you can simply drag the cursor across the letters that you want to change and the letters will "reverse out" just like in any other word processing program. You can then edit your text to your hearts content.

When you produce text on either a curved line or a straight line TypeAlign gives you handles that you can stretch and skew the text with. That means this is the first product that will allow you to do those types of functions with Adobe Fonts. The only other products up to this time for doing this type of work were Letra-Studio from Letra-Set (which you had to use their special fonts for) or TypeStyler from Broderbund which will only work with "type 2" non-Adobe fonts. TypeStyler has announced a version that will now work with Adobe Fonts, but I have not used it yet. When I get it I will review it. While you do not have all the abilities of LetraStudio, I'm sure you will be pleased with the range of things you can do.

You can either print directly from TypeAlign or you can export your work as graphic elements. Wait...it gets better, Not only can you export as a graphic, but you can export it in three different formats. They include PICT and EPS. That means you can then import them into most desktop publishing programs and in there you can resize them just as you would any other graphic. No, the text is not editable when you import it into products like PageMaker, Microsoft Word or Quark.

But I said there were three formats. The third format is the best of all. Actually it is only good if you are an Adobe Illustrator user, but if you are, you are in for a real treat. You can export this text in Adobe Illustrator format. You can then use Illustrator to open them. Once you are in Illustrator and you open one of your TypeAlign files, you are not just stuck with the graphic element that you created in TypeAlign. You now have the text you created in the standard format that can be edited in Adobe Illustrator. Yes, even if this text is wrapped on a curve. Yes, even if you have stretched the text, the type remains fully editable in Adobe Illustrator. If you have ever tried to put text on a curve in AdodeIllustrator you probably gave up. If you did try and rotate each letter individually along a path that you had drawn in illustrator, you were probably close to certifiably insane by the

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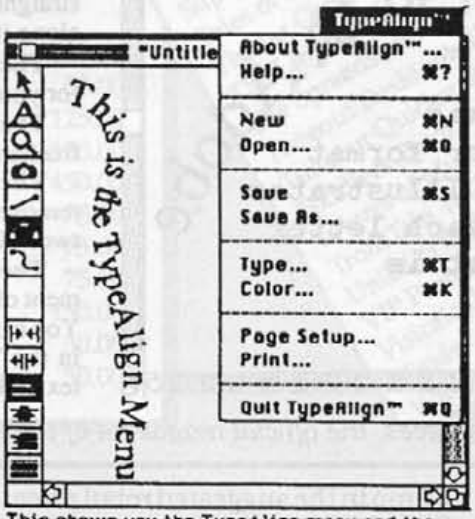
end of the project. Now you can use TypeAlign to put your type along any path you need and then you can import that fully editable type into your Illustrator document.

When you import text that was wrapped on an arc or along a freehand path, each letter is a separate element, which is the only way that Illustrator can deal with it. The feature of being able to export to Adobe Illustrator has literally saved me hours of work in the last month alone. If you draw maps with Illustrator, you must have this product.

It gets better yet. Let's say for example you have drawn a path in Illustrator (or any drawing program) and you want to put type along the curved path that you have drawn. TypeAlign has a camera feature that temporarily makes the TypeAlign window transparent. So when you can see the path on your Mac screen that you want your type to follow, you select TypeAlign under your Apple menu then click the Camera Tool. You can then see through the TypeAlign window to your drawing underneath (because you had it open before you selected TypeAlign from the Apple menu). If the path that you want to bind type to is not fully visible, then you can enlarge the TypeAlign window and/or




This shows you the TypeAlign menu and the ability for TypeAlign to put text on a freehand curve at virtually any angle.

move the window so that the line you want to use is fully visible in the window. Once that is done you click on the Camera Tool again and everything that was visible in the window is now grayed, becoming a template, for you to draw a line over so you can put text on it.

If the path that you want to put text on is not an even arc or straight line, then you can use the freehand tool to trace over the line in your drawing program. When you use the freehand tool, TypeAlign automatically places control points in various places along the path you draw. These control points are not like those in Illustrator. They simply make a point on the line where you can then grab and drag that point of the line to another location. After you have drawn a freehand line, you can either add or subtract control points as you need them. You can also add or subtract points after typing your text.

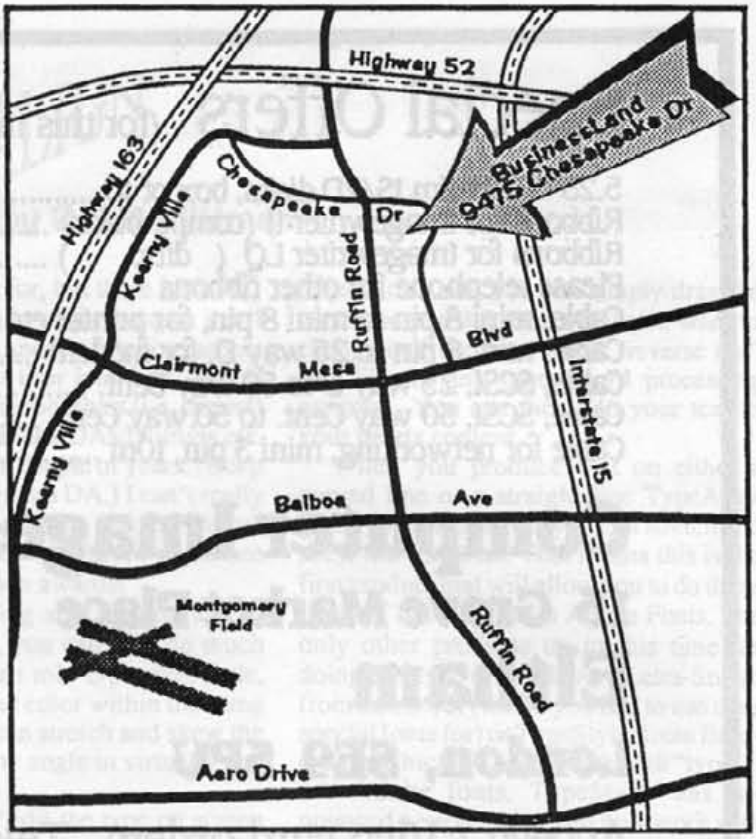
### Nice subtleties

Often when you are putting text along a very curved path you will find the kerning of the letters can become very erratic. Fortunately TypeAlign allows you to add or subtract space between individual letters at increments as small as 1/144 of an inch. You can add or subtract space be-

tween just two letters by selecting only two letters, or you can adjust the space between several letters simultaneously by selecting those letters that you want to change the space between.

If you draw a curve and the text that you are typing is longer than the curve, then TypeAlign just continues typing along the imaginary extended curve. You can also re-size curves after you type your text. You can also re-adjust freehand lines after you have typed your text.

There is a nice type style available called "Accent." It is kind-of like "Shadow," only a little bit nicer looking if you ask me. You can use command key equivalents to change kerning.




**Bad Points**

If you have read the article fully you are probably wondering what it is that I don't like about this product. Well, here are some of the things that I wish could be improved.

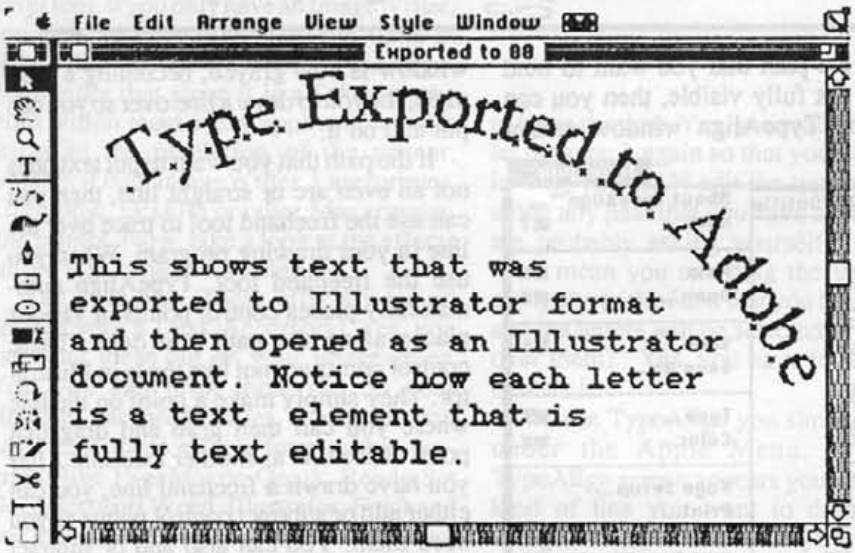
You cannot hit a return while you are typing in order to start a second line of text along the same path definition. You cannot stretch or skew text along a freehand path. You cannot create ovals except by the freehand tool. You cannot select all your text on a path by simply using the "Command-A" keys. You cannot control the gray scale of type by user definable increments. You only get options of 25%, 50% and 75%.

**The Tool Palette**

**The Arrow Cursor** is used for selecting objects and deselecting objects. It also is used for grabbing and dragging the handles on either circle or straight line text in order to skew or stretch the text. With a freehand path of text you can grab and drag any of the control points. In conjunction with the option key it also will either ad or delete control points along a freehand path. If you want another control point where there is not one, you can hold down the option key while you click the baseline where you want another control point and one is added. If you want to delete a control point you simply hold down the option key and click on the control point that you want to delete.

**The Letter Cursor** is used like a letter cursor in any other Mac software. You drag over text that you want to edit (even if it is on a curved path) and then you go about editing your text.

**The Magnifying Glass** is used for reducing or enlarging the screen that you are working on. This allows for doing fine detail work and for looking at the whole picture.




**The Camera Tool** allows you to make the TypeAlign window transparent and to lock the resulting image so you may use it as a template.

**The Straight Line Tool** allows you to draw a straight line in any direction in order to start typing along it.

**The Arc Tool** allows you to draw an arc in order for you to start typing along.

**The Freehand Tool** allows you to draw a line freehand so that you may start to type along that line.

**The Less Kerning Tools** allow you to either remove space between letters or to add space between individual letters.

**The Alignment Tools** allow you to let the alignment of the text to the baseline that you have drawn. You can align left, right, center or justify (not shown in the TypeAlign window diagram in this article) text.

*This article was reprinted from Resources, the official magazine of the San Diego Macintosh User Group.*

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### Farallon Announces Price Reduction for PhoneNET StarController

Farallon Computing have announced a significant price reduction in the PhoneNET StarController. In the USA this means a drop in the suggested retail price from $1695 to $1295.

Lowering the price of the StarController positions the PhoneNET System as the most cost effective way to build active LocalTalk™ networks. The new pricing makes it possible for customers to use StarControllers to build small and medium sized networks, as well as to plan for larger networks. The StarController enables users to build reliable LocalTalk networks in star configurations with the Star Controller 12-port repeating hub.

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# Being "MultiFinder Aware"

## Making your programs "MultiFinder Friendly" (part 2)

by Rick Thomas

**Pro-Cite® — A (Mostly) MultiFinder Aware Application**

Pro-Cite®, the new replacement for the Professional Bibliographic System (PBS) for the Macintosh, is a vertical market application and a bibliographic database program which has some aspirations to being a word-processor besides. When I was well along in the design and implementation of Pro-Cite in the spring of 1987, Apple made Personal Bibliographic Software a beta test site for a new version of the Macintosh System then called "Juggler" (rumour had been rampant about it anyway). Fortunately, the Professional Bibliographic System had been designed and implemented in a Macintosh standard and Switcher-friendly way so that only a few problems had to be ironed out to make it compatible with MultiFinder. As it turned out, most of the PBS processing tasks had also been written in loops that regularly called SystemTask to support desk accessories, so that MultiFinder background processing support was not all that difficult to provide. For the remainder of this article, I shall try to describe some of the code and techniques which allow Pro-Cite to be more or less fully MultiFinder Aware, and I'll also describe support for the new Notification Manager for System 6.0, which Apple gave me the opportunity to test in early 1988. Refer to the accompanying MPW Pascal code listings to augment the descriptions as necessary. In many places, I have left out irrelevant statements to try to make the code clearer and easier to read, while in other cases I've left certain items in so that application developers can identify certain "common" areas of a Macintosh application. To get started, here are some "global variables" (see Listing 1) that are used in the example code listings. (Please note that this is MPW 2.0 code: the Notification Manager glue will eventually be included with the interface files for MPW 3.0, as will constants for all of the trap numbers.)

The first task before the MultiFinder programmer is to determine if MultiFinder is running in the first place, since the user can turn MultiFinder off, and with the shortage of 1 meg SIMMs currently, will probably often want to. We don't want to write a MultiFinder-only application just yet, do we? Using the technique described in Technical Note 158, the Setup routine (see Listing 2), which is called when Pro-Cite first starts up, uses SysEnvirons to see if the 128K ROM is present, since it is required for MultiFinder, and NGetTrapAddress to see if WaitNextEvent is implemented, placing the result in the BOOLEAN variable "WNEisImplemented" (well-named, I think).

Based on the results of this check, the setup code also sets the initial value of the sleep parameter "YieldTime" to 3 as well as the foreground value for this, "frontYieldTime", and the background value "backYieldTime" to 10. These were determined by trial and error and will be used to change the value of "YieldTime" on suspend/resume events. In System 6.0 and later, it is most desirable for the application to set the sleep parameter to something like "maxint" (32767), but for compatibility with System 4.2 and MultiFinder 1.0, in which a bug caused MultiFinder to hang when large values of sleep were used, I've chosen these values and limited the maximum value on sleep to 50. The user can also change these values through Pro-Cite's Configure option (in an undocumented manner), but not all applications are expected to provide such a feature, I would think.

Finally, Pro-Cite also initializes the BOOLEAN "suspended" to FALSE, of course. The remainder of the Setup code sample initializes support for the Notification Manager, which I will describe at the end of this section.

After the initial release of Pro-Cite, I also added the BOOLEAN variable "MultiFinderUp." Under System 6.0 and later, the flag "WNEisImplemented" would actually always be true, even if MultiFinder is currently not running. While many friends at Apple have indicated that it should not be necessary to tell if MultiFinder is actually running, it turns out that there are arguably some situations in which the running program may actually want to know. The first case that comes to mind is the default window size provided by the application when a window is first created. I prefer to leave room for the disk and Trash icons on the right side of the screen under MultiFinder, but to create a window which completely fills the screen when MultiFinder is not running. Be aware if you also decide to test for the MultiFinder trap that the test suggested above may fail in a future system release. In most cases discussed here, "WNEisImplemented" is tested, rather than "MultiFinderUp."

The main saving grace of Pro-Cite in providing MultiFinder support is the centralization of all event-getting in the procedure "MyGetNextEvent" (see Listing 3). Actually, many Macintosh applications probably centralize event retrieval, and it certainly makes the job easier. In "MyGetNextEvent", the

setting of "WNEisImplemented" is tested: if TRUE, we're running under MultiFinder so WaitNextEvent can safely (and should) be called; if FALSE, then we're not running under MultiFinder so SystemTask and possibly GetNextEvent is called. As mentioned earlier, SystemTask may not be needed, but it was left in place in case a future version of Pro-Cite which does NOT require System 4.1 is implemented. More importantly, a BOOLEAN value "callGetNextEvent" is passed in so that background processing may be supported as described below. The result of either WaitNextEvent or GetNextEvent is placed in the BOOLEAN "haveEvent", some other processing is done, and "MyGetNextEvent" returns.

Refer to the abbreviated sample of Pro-Cite's MainEventLoop (see Listing 4) to see how MyGetNextEvent is used. The MainEventLoop is much as one would expect: MyGetNextEvent is called to get an event near the top and the code proceeds through a CASE statement to dispatch activity depending on the type of the event. Notice a few interesting features of the MainEventLoop with regard to MultiFinder. If Pro-Cite is suspended (the variable "suspended" is TRUE), then neither HiLiteMenu nor the CursorAdjust routine is called, since these might affect the display of the foreground application. However, CheckScrap (which makes sure that the desk scrap and internal scraps are the same as far as Pro-Cite is concerned) is called each time through the maineventloop. This really doesn't take too long and thus scrap coercion/conversion becomes unnecessary on suspend/resume events, although others may prefer to perform scrap coercion on suspend/resume events. Notice also that all suspend/resume events (which are implemented as application-defined event type 4, or "app4Evt") are dispatched to a routine called "DoSuspendResume", even in the case where IsDialogEvent returns true: if you have modeless dialogs, be sure to handle suspend/resume events yourself since the Dialog Manager probably won't do much with them. "DoSuspendResume" is the heart of Pro-Cite's MultiFinder support (see Listing 5).

"DoSuspendResume" is called, as one might expect, whenever Pro-Cite receives a suspend event or a resume event. It first checks which window is frontmost via FrontWindow, placing the windowkind of the frontmost window into a global "docType" that is used literally everywhere. It then sets "suspended" based on whether or not the message field of the event is odd: if it's odd, it's a resume event so we're no longer suspended; if not, it's a suspend event so we're about to be suspended. (The temporary setting of suspended to FALSE is merely to allow SetHourGlass to turn on Pro-Cite's hourglass cursor.) If it's a suspend event, then we fake up a deactivate event for the frontmost window, set our YieldTime to the background value, call our activate routine ("MyActivate"), and if one of "our" windows, we also cause an update event just to make sure things are clean (and immediately process it by calling "DrawWindow"). If it's a resume event we do much the same thing, except we fake up an activate event, we set our YieldTime to its foreground value, and we also do a DrawMenuBar (mostly for Switcher). Notice that when handling the activate/deactivate events, we need to pass them to IsDialogEvent (and maybe DialogSelect) if the window is a modeless dialog or to SystemEvent if the frontwindow is a desk accessory which the user has opened in our application's heap instead of the DA layer.

Background processing in Pro-Cite is implemented by the "GetAnEvent" procedure (refer to Listing 4) which is built on top off "MyGetNextEvent". It is merely a small version of the MainEventLoop that only supports suspend/resume events as well as activate and update events. From a process which Pro-Cite wants to support in the background (such as sorting or formatting records), "GetAnEvent" is merely called regularly with the "callGetNextEvent" FALSE (since if we're not under MultiFinder we just want to call SystemTask) and with the event mask for only app4Evt + keydownEvt, the latter to allow Command-period to interrupt the process. The process will continue during null events, plus any windows obscured and then exposed by the foreground task will continue to be updated, and finally a resume event will be processed when the user "clicks back" into Pro-Cite. "MiniMainEvent" is a similar sort of thing, called by Pro-Cite to bring windows to the front when necessary and to combat "display anomalies" in certain places. It is also called by setup right after FlushEvents to make sure that initial events from MultiFinder at startup are processed immediately: if this isn't done, one could find any dialog or "splash screen" initially produced by the application coming up BEHIND the layer (usually Finder) from which the application launched!

Finally, a few words about the Notification Manager, which is available in 6.0 and later releases of the Macintosh System Software. The Notification Manager is NOT really an implementation of interprocess or inter-application communication: that will probably come in some form in System 7.0 or later. It is, however, a means by which an application running in the background can let the user interacting with the current foreground application know that the background application requires attention by a sound, a flashing small icon alternating with the Apple menu icon, a diamond mark on the application's name in the Apple menu, or an alert, or any combination of these. Pro-Cite provides for either sound or the flashing small icon, and it also provides a means for the user to enable or disable these (an idea to keep in mind, if you're going to provide Notification Manager support.) Notification Manager support is actually trivial to provide, if you've accomplished "MultiFinder Aware" support.

Referring as needed to Listing 6, notice that a record type "NMRec" has been declared for Notification Manager support, and the accompanying variable is "nmforProCite". It is just a standard Macintosh Operating System queue element. This record is initialized in the Setup procedure. The qType is just set to ORD(nmType) which is 8 (in fact, Pro-Cite uses this variable to indicate if a Pro-Cite Notification Manager task is currently active.) The nmMark value is set to 1 to provide a diamond mark in the Apple menu: Pro-Cite always does this and this behavior isn't user-configurable. The nmStr pointer is set to NIL: it provides for a string to be displayed in an alert and Pro-Cite doesn't support this feature. The notification response procedure pointer, nmResp, is set to @NMResponse. This procedure does absolutely

nothing in Pro-Cite as yet, but must be present (or the response procedure parameter must be set to NIL) else the flashing icon and menu bar mark will go away immediately after the notification sound occurs! Developers probably will find more for it to do in future applications.

Pro-Cite sets up a Notification Manager task by calling its routine "MyNotify" whenever it has completed a process in the background, such as formatting or sorting records, or when it has encountered an error condition while processing in the background and wants to bring up an error message alert. Pro-Cite could just use the Notification Manager to bring up the alert immediately in the foreground layer, but I think the way I've done it is much less obtrusive. Pro-Cite merely sets up the task with "MyNotify" (checking the variable "notifylevel" to see if the user wanted sound and/or icon, loading the small icon if necessary and setting the nmSIcon handle to it), calls NMInstall to install the queue element, and then hangs around in the MainEvent-Loop or with MiniMainEvent, whichever is convenient, until the user switches back in. When the user does come back in, Pro-Cite kills the Notification Manager task when processing the resume event by just calling NMRemove in "DoSuspendResume." And that's all there is to it!

**A Brief Good-Bye, and Good Luck!**

In this article I've tried to present what I feel are important points to remember when trying to provide MultiFinder support within an application, as disclosed to me by Apple during testing of various versions of MultiFinder, through the documentation that is available, and as discovered by me when trying to accomplish the darn task in the first place. This is by no means an exhaustive list, nor may the techniques described herein be entirely accurate or sufficient for the needs of any given application (there are so many Macintosh applications!) Moreover, as more and more applications become "MultiFinder Aware" and as new versions of MultiFinder are released, some of the techniques for MultiFinder support described here may no longer be sufficient. I would refer you to both present and future versions of Inside Macintosh, the MultiFinder Development Package, plus the Technical Notes (especially 158, Frequently Asked MultiFinder Questions; 180, MultiFinder Miscellanea; 184, Notification Manager; 194, WMgrPortability; and, 205, MultiFinder Revisited, The 6.0 System Release), for more information. Be sure to also consult any Technical Notes listed under the "Compatibility" subject in Technical Note 0, "About Macintosh Technical Notes."

I hope that I have given you an idea of what it's like to provide MultiFinder support in an application and that I have convinced you to go ahead and *do it*. I think it's a good idea that all applications strive to support MultiFinder as much as possible so as to provide as rich an environment as we can for the Macintosh user. At least until the next major Macintosh System release. Good luck.

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# Starting to Program the Macintosh

by Dale Thatcher, age 14
Member of the Herts. and Beds.
Apple and Macintosh Computer Group.

I first had contact with computers when my father bought an Apple IIe, I just used it to play games on but after a while I began to wonder how the programmes worked. I learnt a little BASIC on the Apple but I did not really start to programme until I was bought a Commodore computer for my 9th birthday. As with the Apple I didn't start programming until I had got used to the machine.

Later my father bought a Macintosh; I did not have any standard programming languages so I programed in HyperCard. It was relatively easy for me to start programming in HyperCard because of my previous work in BASIC.

I got used to the Macintosh interface and began to see its advantages over other computers.

Quite recently my father took up a Pascal programming course and bought a Macintosh IIci. So he invested in THINK Lightspeed Pascal. I immediately started trying to learn Pascal.

I was faced with difficulties from the start as the programme was not compatible with the Macintosh IIci. I phoned up Symantec (the producers of the software) and asked them if an upgrade was available; they said yes and sent us a patch through the post, when I received the patch and used it the programme still didn't work. I phoned them again and they said the programme must be corrupt; so they would send me a new copy. About two months later I received it and eventually it worked.

I taught myself the Pascal language from books and once I was comfortable with the basics I tried to move onto bigger things. But I found it very difficult to get information on how to go about doing things in Pascal; like setting the bundle bit or just using the menu bar.

I eventually found out how to set the bundle bit by looking at other programmes source code (that came with THINK Pascal).

My father bought a tutorial programme to go with THINK Lightspeed Pascal it is called Just Enough Pascal. This taught me some of what I wanted to know but even in the tutorial as soon as it started getting a bit more complicated it gave me a reference to a set of books called Inside Macintosh. I was very pleased when my father got hold of a set in paperback for Christmas this year. I now understand how you go about programming the Macintosh so it conforms to the interface guidelines.

I am now developing a programme called Solitaire which enables you to play Solitaire on the computer.

# Letter to the Editor

Dear Editor,
The Debugging Tips (Hardcore Pips 1983 vintage) rang some very loud bells. John Sharp is lucky if he only **forgets** his mistakes. I **repeat** them! On the very day that I read the article, I dropped two classic clangers that had slipped my memory. Some three years ago I wrote a program for building a sorted word list. It still has only about 3200 words in it. The shorter version of it has 26 pointers to the end of each letter, which makes for fast searching and sorting. A few days ago it seemed it might be a good idea to extract lists of, say, all five letter words, etc., rather than manually deleting all the unwanted ones. **SO** -

```
    FOR T=START TO FINISH: TEST$=LIST$(T):
L=LEN(TEST$)
    IF L<>5 THEN GOSUB DELETE
    NEXT: GOTO DISPLAY_LIST
DELETE: FOR COUNT=T TO FINISH-1
    (here code to reduce pointers — the last pointer
being in fact the FINISH)
    LIST$(COUNT)=LIST$(COUNT+1): NEXT:
LIST$(COUNT)=""
    FINISH=FINISH-1: RETURN
```

This is just a paraphrase of the actual code. The first attempt worked in so far as it didn't hang up: but of course for every word that it deleted it skipped a word because the T count moved up while the remaining words had all moved down. So now I had some 2000 words, most of which should have failed the test. But worse was to come. To correct the error I added T=T-1 to the delete routine. Out of the frying pan! The flaws hit you in the eye: but they were somewhat disguised by the fact that the entire delete loop was in the form of a ZBasic INDEX$ D statement. This in effect performs that loop and leaves an empty string after the last word. An empty string does not have 5 characters in it!. I had plenty of time to figure that out as I sat waiting for it to finish. Furthermore you want the outer loop to finish long before the **original** FINISH. How many more mistakes can you pack into a couple of lines of code?

Would any readers be interested in the routine that does the instant sort? It is quite fast, especially as it limits its activity to within the pointers that are constantly being updated. The ASCII code of the word being added (or deleted) determines the START and FINISH parameters. This again is a paraphrase as the actual fragment was specific to the program:

```
Insert word
st=start: fin=finish
DO: test=(fin-st+1)/2
IF new$=list$(fin-test) THEN decide (thus exits at first
opportunity)
IF new$<list$(fin-test) THEN fin= fin-test ELSE st=st+test
UNTIL st=fin
IF new$=list$(fin) THEN decide
Insert new$ at this point (st) and RETURN
```

decide: If this is a spelling checker, you do not want repeats, so RETURN.

If it is a dictionary, you may want several duplicates, so you would not be sent here but directly to insert.
The routines that give you the most satisfaction are the ones that give a neat, quick solution to a knotty problem. One that I was particularly pleased with (having shown how stupid I can be) was to shuffle a set of numbers (pack of cards, bingo calls etc.) with the least fuss. The number of items here was 60, but any number could be used. It is **fast**.

```
"SHUFFLE"
 RANDOM TIMER
FOR A=1 TO 60: RN1(A)=A: NEXT
FOR A=60 TO 1 STEP-1: I=RND(A): RN(A)=RN1(I)
FOR B=I TO A: RN1(B)=RN1(B+1)
NEXT: NEXT
```

(Did I hear a voice cry **"Structure!"**? You can spend your life sorting rubbish, but it will still be rubbish.)

This next line puts 30 pairs into random order. Repeated three times testing for a limit of 13 it would put four suits into random order.

```
FOR A=1 TO 60: IF RN(A)>30 RN(A)=RN(A)-30
NEXT
```

How random can you get? One of the oft-repeated fallacies about computers is that you cannot get random output. It all depends on how much trouble you are prepared to go to. You can easily make it as random as anything that happens outside the computer, provided you are prepared to tell it **what.**

When I figured out how easy it was to calculate the day from the date (using this algorithm you could even do it in your head), I wrote nothing but diaries (academic, 2 year, 5 year) for weeks!

```
DAY$="MTWTFS$":
DAY$=DAY$+DAY$+DAY$+DAY$+DAY$+DAY$
DD$="033614625035": tells instantly which day of the
week a month starts on
LNG$="303232332323": tells instantly how long the
month is
ORG=YEAR-1901: ORG=ORG+ORG/4+1:
ST=ASC(MID$(DD$,MONTH))+ORG
IF MONTH>2 ST=ST-((YEAR MOD 4)=0)*
```

Note: ST does not need to be correct yet, only **relatively correct.** Next line corrects it.

```
ST=TRIAL&ERROR+(ST MOD 7):
ND=ASC(MID$(LNG$,MONTH))-20
IF MONTH=2 ND=ND-((YR MOD 4)=0)*
THISMN$=MID$(DAY$,ST,ND)
```

* [**Beware** - this is an **addition**!]

The above simply calculates offsets from a given starting point. **The starting day (TRIAL&ERROR) does not need to be known.** I do not know what day was 1/1/1901 (and any starting date could be chosen within the period of our present calendar). You just try any number, test to see if it gives correct readings for this year, and adjust accordingly. The pointer thus calculated points instantly to the correct day for the first of the selected month of the selected year in DAY$. By creating a substring from the above starting at ST, and of length ND, the date points to the correct day. If you learn the DD$ and remember ANY fixed date you could perform the above calculation in your head. Century boundaries not exactly divisible by 400 require a further adjustment.

If you simply want a calendar then all you need in addition is a command to print the results on screen or on paper, plus a month string like the following:

```
MN$="JANUARY FEBRUARY MARCH APRIL MAY
JUNE JULY AUGUST "
M$="SEPTEMBER OCTOBER ": MN$=MN$+M$
M$="NOVEMBER DECEMBER ": MN$=MN$+M$
```

There is an obvious parallel between how this routine finds what it wants and how the System finds what it wants. There is a further parallel between what goes wrong with programs when Apple changes the system, and what would happen to this program if the powers that be were to change our calendar!
Bill Pearce

# Multi-Ad Creator

## Walter Lewis takes a look at Version 2.1 of this powerful application for producing Display Ads

I received this latest version of the application very shortly before press date and as an avid user of Xpress from its very early days, it was my intention to lay-out these two pages in Xpress, and import samples from Creator which had been saved as pict files. However, despite following the instructions in the manual very carefully, I failed dismally to achieve any sort of acceptable result particularly when rotation of text was involved. Although no longer a regular user of the programme I did attempt to place the same pict files into a couple of Pagemaker documents but with no more success than I had achieved in Xpress.

I wanted this programme to succeed, but it is important for me to be able to import files into Xpress with confidence. I am prepared to accept that with more time to experiment perhaps I could have had more success so at this moment I will not dismiss this supposed compatibility out of hand. It has so many good things which I would like to use that it is my intention to persevere and perhaps I might be able to report success or failure at a later time.

Consequently this review has been produced entirely in Creator itself and, to be fair, in direct contrast to my problems when exporting files I experienced no problems at all when importing text or graphics in many formats.

Multi-Ad Creator is aimed specifically at those involved in the production of Display Ads but the way it copes with the origination of text, display type and graphics could make it ideally suited for the production of any single page document .

Creator has so many features it is impossible to cover all of them in the time available or the space allocated. Very sophisticated typesetting facilities are available. Type can be automatically scaled horizontally and vertically to fit in a fixed size text box and conversely the text box can be reduced in size to accommodate the type enclosed.

There are Tools for creating rectangles, squares, ovals, circles and for cropping graphics. Starbursts and 6 other regular shaped polygons can be easily created then reshaped and have drop shadows attached. All objects can be rotated in increments via the dialogue box or manually. All the elements needed to create the ads are treated as objects and you can align them in all of the ways that are normally only found in drawing packages

Colour is fully supported and separations can be specified in RGB and CMYK. Pity no Pantone colours but perhaps that will follow.

The application opens with the Ad Size dialogue box which asks you to determine the dimensions of the advertisement you are creating. The size can be set by entering the ads width and depth or selecting one of the preset sizes. Creator comes with a mini-database of pre-set sizes which reflect its US origins, but it is very easy to create your own list. After setting your size you are then presented with Ad Window which shows an outline of your ad. At this stage [or later] you can specify one of the many borders to surround the Ad. These can be modified in as much as you can assign colours or shades to them but you cannot edit or add your own border designs but with over 60 to pick from only the most demanding user will fail to find something to satisfy.

You can build up your own library of custom **Type Styles** which can incorporate all of the choices from the character dialogue box, Type size, font, kerning, word spacing, horizontal scaling and offset [a neat way of customizing subscript and superscript]. You can also assign colour and shading .

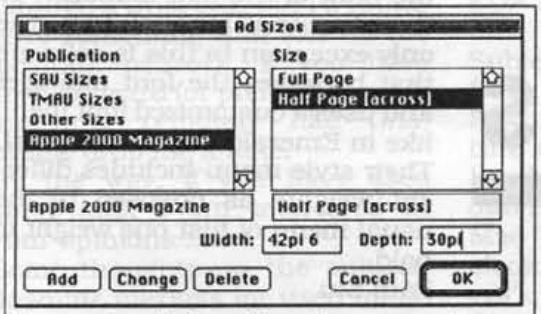
**Paragraph Styles** can also be customised. These can include leading, indents, tabbing, alignment, hyphenation and any previously defined **Type Style**.

**Style Models** are very useful when creating ads with similarly styled blocks of text which include mixed fonts, sizes, styles and colours. Set the copy, click on the model style in the styles palette [or keyboard equivalent] and hey-presto it is formatted. Very clever!

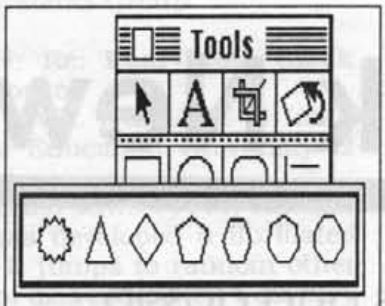
Another of the unique features is a Suggest Facility which allows Creator to suggest alternative layouts automatically or following priority guidelines defined by the user. I must admit that I was not at all impressed by the alternative suggestions I was given and must reserve judgment on what to me seems a bit of a gimmick.

I found the application had few bugs and was easy to use, but, unless an answer is available for my problems with importing the pict files into Xpress, I am afraid I will not be using Creator as much as I would like.

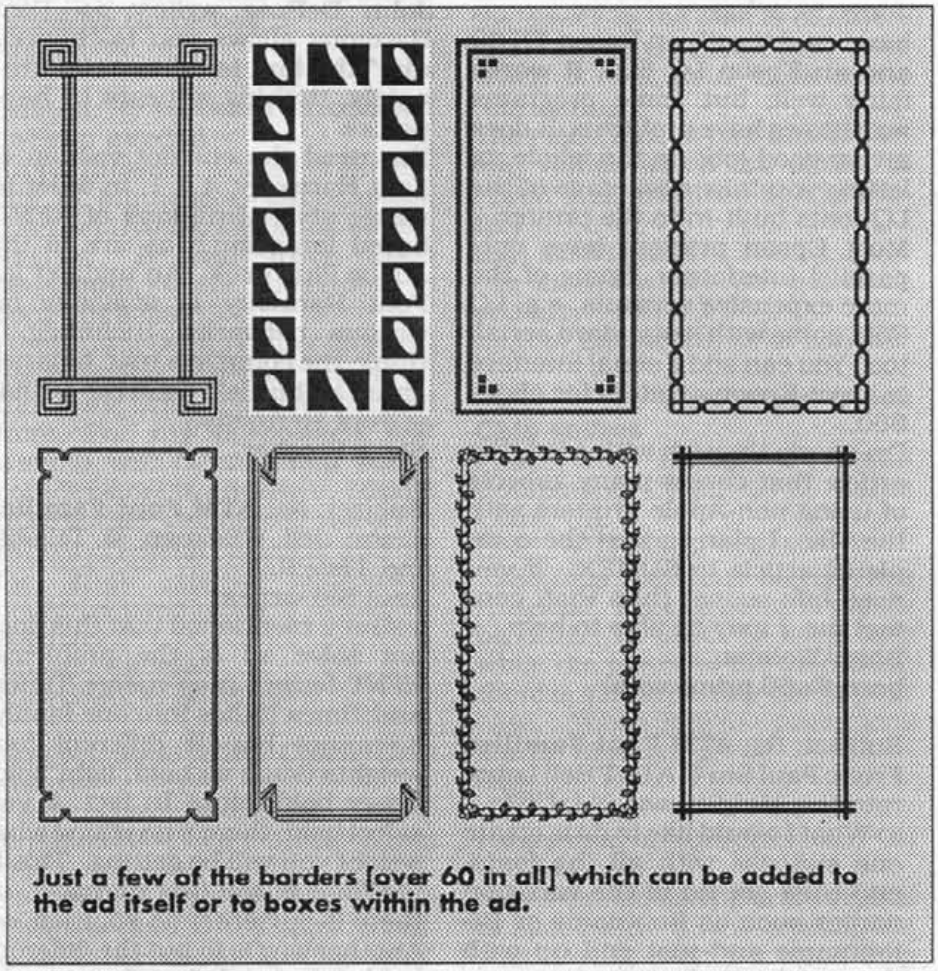
Having said that I am sure that as a stand-alone application for producing Display Ads that it will find many devotees. I know of at least one user who produces numerous full page ads for Tabloid Newspapers and he swears by it.




The opening dialogue box allows you select a preset size or compile your own list of most used or standard sizes for any publication




Double clicking on the Starburst tool brings up the other choices of regular polygons.



**Just a few of the borders [over 60 in all] which can be added to the ad itself or to boxes within the ad.**

Teachers Whisky
£8.95 per bottle
SPECIAL PRICE

Teachers Whisky
**£8·95** per bottle
**SPECIAL PRICE**

Three lines of type above left, keyed straight in, all selected, *Option/Control 1* is typed and type is formatted as per instructions in **Style Model.** The type was changed to white then placed in front of a black filled Starburst and the whole thing rotated. Very easy and very quick.

## WHAT A SHAMBLES

The manual really is a shambles!

What irritates me as much as anything else with Creator is the abortion called a manual. The developers took some stick over the manual for the earlier version and you would have thought that they would have taken some care over this reissue. The content is reasonable in as much as it I was able to find an answer for most of the queries that I had, but really the layout and design is a joke.

I have been in the printing trade for over 30 years [One years experience thirty times according to one of my jaundiced colleagues] and although I am neither a Designer nor a Compositor [I know – the state of these two pages proves it] I do have a reasonable idea of what looks right and what does not and believe you me this manual is embarrassing.

The programme is sophisticated, innovative and is obviously aimed at designers, so surely it is not too much to expect a manual that does justice to the programme. I rather think that the developers gave the job of production to the 10 year-old daughter of the lady who washes the floors. Because that is what it looks like.

There are numerous instances of illustrations at the foot of a page with the caption appearing at the top of the following page as well as subheads standing in splendid isolation at the bottom of pages with the first line of text starting on the following page. Surely when charging the sort of price they are, they could have taken a little more care!

The Contents pages for both User Guide and the Reference sections are a waste of time. Nobody has bothered to check if the page references are correct

The layout generally is very poor. With all of the facilities at their disposal they could have produced something which would have been credit to the application.

I do like the programme really!

# Network News

## The latest news, tips and gossip from the networks.

**From Usenet**

Subject: **News: Epson Printer Driver**
From: Barry Wolman
Michael Niehaus writes: "News: Epson Printer Driver"
>>For those of you who already own an Epson printer (back from the days when an IBM PC clone was all that you had, you may be interested in this information. According Byte magazine, Epson USA has announced a Chooser-level driver for several of their printers. If my memory is correct, this includes the LQ500, LQ850, LQ1050, LQ1250, etc.
Cost was listed at $69 for the software and a cable to connect the printer to the Mac. (The LQ500 required an additional serial interface board, which cost more than the driver and cable.)
[ An aside: I never realized that Epson printers were capable of serial output. I thought that they only did parallel. From this article, it seems that they can do serial as well (all except the LQ500). If this is not correct, would someone please let me know? ]
Michael Niehaus <<
The EPSON LQ software is a repackaged version of the Phoenix Technologies Printworks package. The EPSON version comes with a cable, driver, a set of 10- and 12-point fonts that correspond to fonts defined in the Epson, e.g. Pica, Elite, Compressed, and four fonts that corresponds to Times, Helvetica, Courier, and Symbol. These latter fonts come in the funny 2.5 times sizes needed for 180 dpi output on LQ printers. My local discount Epson dealer had it for $49, which is a good deal.
I own the Printworks package and have used it with an Epson FX 80 and an Epson LQ 500. It works fairly well, but some programs sometimes have problems. It does a very good job, on the whole, of letting you take advantage of the LQ fonts built-in to the printer.
Most Epson printers have only parallel interfaces. Some of the more expensive versions, e.g. LQ 850, come with a standard serial, too. You can add a serial interface to most Epson printers for about $60.
I'm nearly through with a lengthy article that covers many aspects of using non-Apple printers with the Mac. I plan to post the completed article to SUMEX. If you need info sooner than that, contact me, I may be able to help.
Barry Wolman
barry@s66.prime.com

Subject: Re: **ATM Font Families**
From: Paul Siu @ AT&T Bell Laboratories, Middletown, NJ, USA
>>What I would like to do is create one suitcase with all the fonts, and then get rid of the variation names such as Ifontname or BIfontname and just end up with the root family font names.
John DeRosa, Motorola, Inc, Cellular Infrastructure Division<<
In Jan 1990, issue of Mac User, there is an article about the problem you described. It mentioned one of the solutions was to convert all the fonts into the new NFNT format, and merge them using products like Font Harmony.
But it mentioned that this does not solve all of the problems, using NFNT font may merge Times, and Times Italics into one family, it cannot handle different font weights (such as bold, light bold, heavy bold, etc). In fact, if you select bold, there's no telling what weight you will be getting. This is the fault of the font manager, so there is currently no solution. The only exception to this is software that bypasses the font manager and uses a customized font menu like in Emerald City's Smart Art. Their style menu includes different weights as opposed to the usual menu of just one weight of bold.
Paul Siu

Subject: Re: **ATM Font Families**
From: Steve Brecher @ Software Supply, Sunnyvale, CA
John DeRosa writes: >> Font Harmony allows you to "harmonize" the font families. Unfortunately, nothing appears to happen.<<
You need the current version of Font Harmony, 1.2.1, in order to merge style variations of NFNT-based fonts such as are in the Adobe Plus Pack. An updater for Font Harmony is available on various networks, including, I think, the comp.sys.mac.binaries group of this net. (I am the author of Font Harmony.)
Steve Brecher

Subject: Re: **ATM Font Families**
From: Jeff Wiseman @ Tellabs, Inc. Lisle IL
Paul Siu writes:
>>But it mentioned that this does not solve all of the problems. NFNT format may merge Times, and Times Italics into one family, it cannot handle different font weights (such as bold, light bold, heavy bold, etc). In fact, if you select bold, there's no telling what weight you will be getting. This is the fault of the font manager, so there is currently no solution.<<
Another way is to put the different bolds into 4 style "sets" assigned a different name in a suitcase by itself. Then use Suitcase II to pull in the family (eg. Heavy Bold Times) that you want. It's a little clumsy and uses redundant space on your disk but it is possible in a simple fashion.
Hope this helps
Jeff Wiseman

Subject: **Network automated backup needed**
From: Anders Sjolund @ TeleLOGIC Uppsala AB
I'm looking for a way to automatically backup our 20 Macs to a single tape drive every night. I am aware that MacDump does this

through a Unix box, but I'd rather have something that sits on the localtalk network. If you have seen or heard (or preferably used) anything remotely like this, please drop me a note.
By the way, if you have used MacDump, I am interested in your opinions...
Some thoughts on the subject: Jasmine markets (or used to) an AppleShare server box. This box should do nicely as a platform for a backup server. Just write new software, and add a 2GByte tapedrive to the box...
Anders Sjolund

Subject: Re: **Network automated backup needed**
From: Russell Cattelan @ University of Minnesota, Minneapolis, CSci dept. Anders Sjolund writes:
>>BTW, if you have used MacDump, I am interested in your opinions... <<
I found MacDump rather limiting, because you can only restore to the same drive that you dumped from. For my purposes I just wanted one clean dump that I could restore to any drive. I find it to be rather well done if you want to do incremetal backups, and the fact that existing equipment could be used made it rather attractive.
Russell Cattelan
University of Minnesota

Subject: **Real Time Clock Chip source**
From: Jim Budler @ Digital Equipment Corp., DFE, Santa Clara, CA.
My Antique Mac has developed a fibrillate dclock. It jumps to random other era's, or dies completely February 6, 1940 at 6:28:15 AM.
I took the CPU board out and ran the computer while watching and waiting for this to reoccur.
The chip stops dead... This could be the $0.39 crystal, but I suspect it's probably the clock chip itself. The problem is I can't identify it, let alone find a source for it.
It's a little 8 pin with the numbers 8504 on it, but that looks suspiciously like a date code to me.
Does anyone know what this chip is, and hopefully, where I could get one?
Thanks,
Jim Budler
Digital Equipment Corporation, EDA Systems Group

Subject: Re: **Real Time Clock Chip source**
From: EARL WILLIAMS @ Institute of Education University of London
Jim Budler writes: >>My Antique Mac has developed a fibrillated clock. It jumps to random other era's, or dies completely February 6, 1940 at 6:28:15 AM. <<
Sounds like your battery has run dead. The clock chip is probably fine. In order to keep time while the power to the Mac is off, there is a little battery inside your case. When it dies, your clock starts "fibrillating."
The clock time is just one of several values which are stored in PRAM and sustained by this battery.
Earl M. Williams
"No matter where you go, there you are."
Inst. of Education, U. of London

Subject: Re: **Real Time Clock Chip source**
From: Jim Budler @ Digital Equipment Corp., DFE, Santa Clara, CA.
EARL WILLIAMS) writes:
>>Sounds like your battery has run dead. The clock chip is probably fine. In order to keep time while the power to the Mac is off, there is a little battery inside your case. When it dies, your clock starts "fibrillating." <<
Sigh...
No.
I can read a voltmeter and an oscilloscope.
Either the clock chip or it's crystal is bad. I have a new crystal, but was hoping to find a clock chip before cracking the case again.
Jim Budler
Digital Equipment Corporation, EDA Systems Group

Subject: Re: **No Macintalk in system 7?**
From: Ross M Mather @ Comp Sci, Glasgow Univ, Scotland
In his article Norman Goodger) writes:
>> I've followed this thread about Macintalk for a few days now and think that its gotton out of hand. Why ? Because some people want to discuss product evolution or lack of it ?
My personal opinion is that if Macintalk dies under System 7, so much the better. Macintalk was so crude and hard to listen to and was of such poor quality, I find it strange that everyone is defending with such fervour, a piece of software that is not worth it. <<
Well that's your personal opinion, but that of a good many other people is that Macintalk should have been kept going until such time as a suitable enhancement was available from Apple.
>>To me the demise of Macintalk is a good thing, it will allow either the third party, or Apple to eventually create something better, and until that comes along, I can live without it quite nicely... <<
Well thats very nice. But there are a whole host of Macintosh users out there that use Macintalk a lot. Macintalk is the one speech driver the Mac has and it is useful for a whole host of tasks. Not least amongst these is for software used by PreSchool age children, who usually can't read. They don't seem to have too much problem following it. The handicapped are another example (especially with Easy Access available) again where people may have trouble reading.
Macintalk could not claim to be the world's greatest Speech Synthesiser, but lets face it, for 1985 it's a pretty advanced item. Heck, most computers about still can't produce Macintalk quality speech. Yes Apple needs to improve it, but that doesn't mean that people can't use the net to try to make sure that Apple does.
I'm a developer and I'm using Macintalk in the development of PreSchool Educational Software and it's a god send. Yes, it is not compatible with all machines and it's not got the world's nicest accent, but it is useful.
Ross
Senior Honours,Comp. Sci. Dept.
University of Glasgow, Scotland.
** If I hadn't want it heard I wouldn't have said it - Klingon Proverb **

Subject: Re: **Font menu SANITY!!**
From: John T. Chapman
In his article Roy Smith writes:
>> Here's a human interface question. Let's say you wanted to make a 4-level pull-right menu for fonts, so you can set family, size, weight, and slant, i.e. Helvetica 18

demi oblique. The question is, which order do you want to have them? Like I did above, or you you prefer Helvetica oblique demi 18, or18 Helvetica oblique demi, or .....
Roy Smith, Public Health Research Institute
455 First Avenue, New York, NY 10016
"My karma ran over my dogma" <<
Well, I just finished sorting through all this Font Menu stuff, especially that concerning weights.
Roy - I don't know if I'm really qualified to answer your question, but I'll throw some advice your way:
DONT use 4-level heirarchal menus!!!
Not only do Apple Human Interface guidelines say that hierarchal menus with more than 2 levels are a big no-no, but if you've got a 9" screen, you'll run into BIG problems trying to fit
New Century Schlbk __
-48__
-Demi__
Oblique
on your screen!
My suggestion is that you try one of two approaches:
1. Create a 'Text Attribute' dialog. Inside, have pop up menus of Font, Size, Weight, Slant and Misc. (for Shadow, Outline, etc.) (Eg. something similar to the MS Word 4.0 'Character' dialog, but add a menu for weights instead of the 'Bold' checkbox)
2. Use a 'Text' menu, with hierarchal menu options for Font, Size, Weight, Slant, etc. This will probably make it a bit faster since menus seem to be quicker to access, esp. when changing only one item. Also menus tend to 'draw' faster than dialogs. A drawback is that it can clutter up a menu bar a great deal.
With either approach, I would suggest putting in a 'Status' area, displaying the 'full' name of the current font. As to order, I suggest font family first, followed by weight, slant, and size. I'm not sure where I'd put other style modifiers.
Hope this is helpful.
John
PS: I wish the big names would offer at least 'Weight' menus instead of the standard 'Bold' option. If it seems to big a hassle to 'standard' users, it could be a 'Power-User' option - i.e. only under 'Full Menus' or toggle through Preferences type feature.
John T. Chapman
Witty message under repair...
Disclaimer: These opinions are mine. You can't have them!

Subject: Re: **Beware formating HD floppies in DSDD drives**
From: Todd Sellers @ NCR Corp., Engineering & Manufacturing - Columbia
The problem with using an 800K formatted HD floppy in the FDHD is that they use two different recording technologies. The FDHD uses MFM (modified frequency modulation, I believe) for recording on HD floppies. It uses GCR (group coded recording) for writing on other floppies. I don't think there is any truth to the signals being stronger on one over the other. I can't believe that the erase head wouldn't be able to do its job. I do agree that it is annoying.
Todd Sellers

Subject: **Hard Disk woes... Initialize!?!? What do you mean initialize?!?!?**
From: Allon Stern @ University of Maryland, College Park
My 40 Meg Apple hard disk has been having problems. First, let me state that it is not a Quantum. It is a Segate (at least that's what it says on the controller board). Lately it will not boot, and when booting from a floppy, when it tries to mount the HD, it seeks around for a while, then comes back and says that it is damaged, and do I want to initalize it.
I had a friend come over with his 44meg removable SCSI HD, and when I tried to show him the problem, the Mac booted (Thanks, Murphy!). So, we made a copy of my HD onto a spare removable HD of his, so I have a current backup. I then tried initializing the HD with the Apple SC setup program, then loaded my stuff back onto the drive.
But the problem won't go away. What can I do? Any other thoughts, or suggestions? I'm probably going to wind up taking it to a dealer and get a new HD in return for the old one (they get credit for old drives, don't they?). The computer/drive (it's a drive sold by Apple) is only about a year old – Oh, sorry, it's a Mac II with an internal drive.
Thanks. Please reply by E-Mail, since I have a couple of programming assignments and lots of homework, and a test to study for, and may not have time to read news for a while.
Allon
This is a test of the emergency signature system. Were this an actual signature, you would see amusing mottos, disclaimers, a zillion net addresses, or edifying philisophical statements. This is only a test.

Subject: Re: **Inside Macintosh: Will we ever see a revised, updated edition?**
From: Philip Machanick @ Computer Science Department, Stanford University
In his article Michael Thomas Niehaus writes:
>> Phil and Dave's Excellent CD is not, and will not be available through APDA. This is due to the fact that the CD contains several unfinished or untested items that are considered too preliminary for general distribution through APDA...<<
Yes, but APDA will ship preliminary documentation for other products without hesitation. Here's an example: Macintosh Communications Toolbox. The first beta documentation released was very hard to comprehend. The sample code was nearly useless. The manual contradicted itself in several places. But it was still useful for the information it contained. So put out Phil and Dave's CD anyway, label it beta, and we will be happy.
If you want more examples of "unsupported" things which have been sold through APDA: Smalltalk-80 and Macintalk. The former was a Good Idea because it was only of appeal to sophisticated programmers and was anyway replaced by good commercial products. The latter was NOT a Good Idea, because Apple didn't think about replacing it with a workable alternative (well, if they did, they haven't done anything about it yet).
So: be consistent, Apple. If something is not currently supportable, but is going to be part of a "finished" product, why not sell it with large red disclaimers? You've done it before. This is a hell of a lot better than selling an "unfin-

ished" hack like Macintalk, complete with disclaimers, and ignoring the fact that there are a lot of people who actually use it and would be really happy if a "supported" version appeared.
Philip Machanick

Subject: Re: **Inside Macintosh: Will we ever see a revised, updated edition?**
From: Tim W Smith @ The Portal System (TM))
Ignore everything past IM-I. This has two advantages.
1) you only have one volume to read, and
2) your program will run on my Plus, which, for obscure reasons, I have to run System 3 on.
While part of this posting is meant as a joke, part of it is serious. You can get quite far in an application with just IM-I.
Tim Smith

Subject: Re: **Inside Macintosh: Will we ever see a revised, updated edition?**
From: Tim W Smith @ The Portal System (TM))
The stack on the CD-ROM is great, but it is real slow, even when I copy it to my hard disk.
Also, Hypercard is real big.
What I would like to see someday is an electronic version of IM and the tech notes that does NOT use Hypercard. It would use a custom program designed to be small and fast.
Tim Smith
PS: Yes, I know this is probably not possible for political/marketing reasons, but I can dream, can't I?

Subject: Re: **Naming your Stuffit-packages**
From: Brandon S. Allbery @ North Coast Public Access UN*X, Cleveland,
As quoted from Kurt Hirchert:
>>2. I would like StuffIt to have the option to create a folder, but I would prefer you not to force that on me. Sometimes I want to look at the documentation or README file on a program without extracting the whole mess. Forcing the folder prevents me from doing that. – – – – – – –
This one could be solved by having something (option-click on folder?) expand the folder's contents in the archive listing; then select items as usual. This gives the user the option of extracting the entire folder with a double-click or extracting single items from the folder in the usual way.
Brandon
("...and a partridge in a pear tree!")

Subject: Re: **Naming your Stuffit-packages**
From: George D. Nincehelser @ Advanced Technology Laboratory, Southwestern Bell Telephone
Brandon
Another option is to use Boomerang to create a new folder. A command-n enter-foldername sequence works great, but it doesn't do you much good for the "batch" unstuffing option.
George D. Nincehelser
Southwestern Bell Telephone
Advanced Technology Laboratory
1010 Pine, St. Louis, MO 63101

Subject: Re: SUMMARY: **MacUser vs MacWorld**
From: Tim W Smith @ The Portal System (TM)
MacUser seems to be OK for things like "what tape backup system is fastest" and "what word processor has the most features", but when to comes to technical details, they make some mistakes.
For example, the December 1989 issue contained an article on slimming down the System file. On page 226, we have the following ( any spelling errors are transcription errors on my part ):
"The chief benefit of this exercise, though, is to learn what the components of the System file are for. For example, if you delete the FKEY ( function key ) resources, you'll lose certain capabilities; the best-known of FKEYs are probably Command-X, Command-C, and Command-V, for the Cut, Copy, and Paste commands, respectively."
Wrong. It seems to me that they've been making many little mistakes like this. More so than they did, say, two years ago. Has anyone else noticed this?
Has someone fallen asleep in the editorial department, or have I just gotten more critical over the last two years?
Tim Smith

Subject: **DeskWriter Questions**
From: Jason W. Anthony @ Clarkson University, Potsdam, NY
I just received my DeskWriter, and it's great! I have a number of questions I was wondering if someone could answer:
o What is the expected lifetime of a print cartridge?
o Does anyone know a source for less water-soluable ink? Does it have any effect on print resoultion?
o Throughout the DeskWriter manual, it says in italics: "Do not use inkjet paper." Does anyone know why?
I purchased some paper called Watermark Electronic Paper. It says it is 25% Cotton Fiber Content, and good for electronic printers including ink jet, but the quality is noticably less then the standard computer paper I used to use. Anyone know why this might be?
Thanks for any help!
Jason W. Anthony
Computer Engineering, Clarkson University

Subject: **Checking for the existence of a file**
From: Louis M. McDonald @ The Aerospace Corporation, El Segundo, CA
Does anyone know a good way to check to see if a file exists, and then based on the result, create a new file, or open the old one?
My primary application is to tie documents to applications (e.g. Word). The idea is to allow me to open a document, and if it does not exist, an empty document will be created and the application will use that.
Louis McDonald

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**Usenet** is a loosely-coupled network of co-operating academic and commercial computer systems. It is a non-profit network whose primary aim is the sharing of technical information and the spreading of research results.
**Delphi** is a commercial timesharing and bulletin board system. The Delphi Digests are made available thanks to Jeffrey Shulman of Rutgers University.

# Macintosh Technical Note #260
# NuBus Power Allocation

**#260: NuBus Power Allocation**
Written by: Rich "I See Colors" Collyer
October 1989

This Technical Note discusses a very real power limit for NuBus™ expansion cards and warns developers to heed this limit lest they want users trashing their machines by overextending the Macintosh power supply.

**Click-Click Mode?**

*Designing Cards and Drivers for the Macintosh* clearly states that allowed power per NuBus slot is 13.9 watts (pg. 6-6). That is 2 amps at 5 volts, 0.175 amps at 12 volts, and 0.15 amps at -12 volts. If your Nubus card requires more than this allocation, then you need to make sure that users do not fill all of their Nubus slots. A good rule of thumb is that if users can fill all of their slots with your card and the machine is still able to boot, then you are okay. If the machine goes into click-click mode, then you need to make sure that users cannot fill their slots. Click-click mode is a safety feature of the Macintosh power supply. The Macintosh is trying to start the machine and finding that the power requirements are greater than it can handle. The problem is that the power supply is not getting far enough into the startup procedure to turn itself off, so it keeps trying to turn itself on. The only way out of this mode is to pull the plug.

**What's Allowed and Why**

Following are a few scenarios which might cause major heart problems for a user (these stories are fictional, and the names have been made generic to protect the innocent).

| Slot | Card | Power Requirement |
|---|---|---|
| 9 | video card | 10 watts |
| A | EtherTalk | 10 watts |
| B | memory card | 20 watts |
| C | A to D | 15 watts |
| D | CPU | 20 watts |
| E | video card | 10 watts |
| **Total** | | **85 watts** |

This first scenario ends with a power requirement which exceeds the allowed power by 1.6 watts. The result of this over requirement can cause some very nasty results. Even if the machine could work, there is no guarantee to cover a thermal problem. The Macintosh was designed with the assumption that there would only be a need to dissipate 83.4 watts of NuBus power. If the machine must dissipate more than 83.4 watts of NuBus power, then it is possible that you might start burning chips.

An even worse scenario considers a fully loaded Macintosh IIcx. It is a lot easier to load up a IIcx, since the IIcx has half as many slots as the II and a power limit of 41.7 watts. This second scenario demonstrates a less high-powered user with a IIcx.

| Slot | Card | Power Requirement |
|---|---|---|
| 9 | 32-bit video card | 15 watts |
| A | video card | 10 watts |
| B | CPU | 20 watts |
| **Total** | | **45 watts** |

In the second case, the machine is overdrawn by 3.3 watts. You may think that this is not a reasonable list of power requirements, but the reality of the power requirements is not the point. The point is that card developers must put forth an effort to protect the users, or we all look very bad when the silicon starts to melt. It is not very favorable to have our users burning up their machines because a NuBus card needed more power than it was allowed.

The wattage which a card requires is not the entire problem. It is possible to stay within the 13.9 watt limit and still have problems. You must also stay within the amperage limit for each voltage. You cannot just assume that since you are not using the 12 and -12 volts that you can use 2.78 amps of 5 volts (13.9 watts); the Macintosh power supply was not designed to convert 12 volt power allocation to 5 volt when it is needed. Scenario three presents an example of a Macintosh II which is filled with cards that are within the wattage limit, but that exceed the amperage limit.

| Slot | Card | 5Volt Power Requirement | Amps |
|---|---|---|---|
| 9 | video card | 10 watts | 2 |
| A | EtherTalk | 10 watts | 2 |
| B | memory card | 13.9 watts | 2.78 |
| C | A to D | 13.9 watts | 2.78 |
| D | CPU | 13.9 watts | 2.78 |
| E | video card | 10 watts | 2 |
| **Total** | | **71.7 watts** | **14.34** |

Under normal conditions, the Macintosh II power supply can handle up to 12 amps at 5 volts. In the third scenario the NuBus cards are drawing 14.34 amps. Half of the cards are within the limit, but the other cards are not, and the result is a Macintosh which goes click-click.

**But I Need the Power...**

Now that we've told you not to take more power than you are allowed, we are going to give you a way out. We understand that it is impossible to fit within this power budget with some types of NuBus cards; if your card contains a processor, or worse, a lot of RAM, then you are going to run into the power allocation very quickly. In the rare case when you do need to consume the power of multiple slots, then you really must make absolutely sure that the slot or slots next to your card are not used.

The first possible solution is simply blocking off the slot or slots next to your board. You can build a device which extends out of your card to prevent the user from inserting other cards in the the adjoining slot or slots. The first slot to cover is the one on the component side of your card, thus allowing increased air flow on the side of your card which is most likely a little warm. This method, however, is not necessarily the method of choice. One of the problems with this method is that the power allocation is not part of the NuBus specification, it is a Macintosh-specific limit. It is always possible that this limit will be raised on future machines, and you do not want to implement this solution on machines where the problem is not a problem. The second solution is a bit cleaner than the first; however, it also has the potential for a similar problem with future machines.

The second solution is to design your card as a multiple-card implementation and have an internal bus which connects the two cards with ribbon cables or another type of connector. The benefits to this solution are a guarantee that users physically cannot put more cards in their systems than the power supply can handle and you get additional real estate with which to play.

A third, and perhaps simpler, solution is to ship a slot cover with your card. You can ask users to install the cover over the slot next to your card (or multiple slots if necessary). This cover should keep the user from inadvertently using the slot while not forcing the loss of a slot in any future machine with an increased power budget. This route would require an explanation and visible warning in the documentation; however, if the users do not heed your warning, then they cannot very well blame you for their clicking Macintosh (they will probably blame us).

These solutions are not the only ones which exist, but we haven't thought of any other great ideas. The main goal is to provide a method which protects users from overextending their machines. If you can devise such a method, then more power to you (well, not really).

**Don't Get Flamed**

So the moral (what's that) of the story is that you need to put yourself into the shoes of your users (but don't try it literally). If they burn up our computers or find themselves in click-click mode because a NuBus card got a little greedy, then they are going to be very upset, and that is something that both Apple and third-party developers need to work very hard to prevent. If you "need" the extra power, then you must make absolutely sure that users are not going to get burned by your NuBus card.


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# MacWorld Expo Holland, 1990

The MacWorld Expo 1990 in Holland will be held at the RAI Exhibition and Conference Centre in Amsterdam — for the third consecutive year.

The Expo will run through the 9th, 10th and 11th May 1990. The venue is well-suited, as we saw when we visited the first one to be held there back in 1988. The Dutch are excellent organisers and hosts, of course, so we can expect a well-run schedule.

The RAI Exhibition Centre is a good venue, with easy access by public transport in addition to the car parking facilities.

The Expo will cover more than 18,000 square metres, and it is anticipated that more than 250 exhibitors will take part. The attendance is expected to be in excess of 22,000 visitors over the three days.

If the Expo follows the same pattern as the previous years, it should be worth attending. My only complaint is the dates — Wednesday to Friday — why can't the organisers accept that many people can only attend such events at weekends? I'm sure that many of us would enjoy a weekend in Amsterdam which could include a visit to the Expo.

# Software Circus

## Product Information from Press Advertising Leaflets.

**EPS Corner Collection #1**
EPS Corner Collection #1 is made up of wide design assortment (65) of graphic corners which range from the personal touch to those suitable for use in commercial ads/layouts (Top Lt, Top Rt, Bottom Lt, & Bottom Rt) in EPS format. The collection consists of 10-800K disks, printed & bound hard copy for each corner design for quick reference. Retail cost $130.00 covers EPS collection, shipping and handling. Aldus FreeHand version of Corner Collecion # I - is the "source" files used to create the EPS version and may be used to create full borders to match each corner design. Retail cost $150.00 covers Aldus FreeHand version of the collection, shipping and handling.
Page One Graphics, P.O. Box 33097, Austin, TX, 78764 (512) 444-4593

**Appleshare on PCT/AT/386**
MacLan Connect may be used as a standalone AFP server for Apple Macintosh networks or as a LAN Bridge connecting AppleShare LANS to PC based LANS. MacLan Connect supports several LAN operating systems including Banyan Vines, Ungerman Bass, MS NET, Lantastic, 3Com, Novell NetWare, and more... To Macintosh users MacLan Connect appears as an AppleShare server. All of the attached DOS storage devices are aavailable to MAC Users as an AppleShare Volume. The User accesses files in the same fashion as on any other AppleShare Server utilizing the AppleShare workstation program included with System 6.0. The network can be administered remotely from any Macintosh on the LAN with Admin privileges. The suggested retail price is $995.
Miramar Systems, 201 N. Salsipuedes St. Suite 205, Santa Barbara, CA. 93103 (805) 966-2432

**The Radius QuickCAD Graphics Engine**
The Radius QuickCAD Graphics Engine brings display-list graphics performance to CAD applications like AutoCAD and VersaCAD on the Macintosh. Advanced Radius display-list software and a 6 MIPS RISC processor in QuickCAD ensure increased productivity gains previously unheard of in the Macintosh CAD environment. QuickCAD increases screen response up to 30 times, so redraws, pans and zooms, which typically take minutes to complete, are done within seconds. QuickCAD is completely compatible with Apple's QuickDraw, which ensures compatibility with all of your software, including your CAD/ CAE application's interface and program functionality. A Radius Color CAD System includes the Radius Color Display, the GS/C, Direct Color/16 or Direct Color/24 Interface, and QuickCAD. Radius QuickCAD also supports the Apple 1 3-inch RGB Color Monitor and 8-bit Macintosh II Video Card. The suggested retail price for QuickCAD is $1495. QuickCAD will be sold only through Authorized Radius CAD Resellers. Radius Inc., 1710 Fortune Drive, San Jose, CA 95131 (408) 4341010.

**AntiToxin version 1.2** – an upgrade to their AntiToxin virus detection decontamination, and protection software. The new version of AntiToxin provides an "nVIR mutant detector", enabling it to provide a complete defence against all current strains of nVIR - nVIR A, nVIRB, Hpat, AIDS, MEV# and nFLU - as well as any future mutants. nVIR is by far the most prolific Macintosh virus, accounting for an estimated 90% of all infections. "Each of the last three 'new' viruses on the Mac have all been deliberate mutations of nVIR," said AntiToxin programmer Yves Lempereur. "If new nVIR-hased viruses appear, AntiToxin customers will automatically be protected." Additional features appearing in version 1.2 include faster checking of multiple floppy disks, the ability to check or repair a folder, and the ability to detect virus "stubs" - inactive pieces of viruses which often result from an individual or program failing to completely remove a virus. AntiToxin is composed of an application which detects and removes viruses plus an INIT which inhibits a virus-infected program from executing, thereby preventing the virus from infecting a system. AntiToxin is especially effective for network users. It can protect a Macintosh from infected applications residing on a server. In addition, it can remove a virus from a server remotely. The 1.2 upgrade will be sent free of charge to registered 1.1 users. The suggested retail price is $99.95
Mainstay, 5311-B Derry Ave., Agoura Hills, CA 91301 (818) 991-6540

**"Low Power" 40 MB, 25 ms, Macintosh portable hard disk drive systems.**
These Macintosh portable hard disk drive systems include both internal and external versions and are developed around the 1/3 height Conner Peripherals SCSI hard drives. The internal version

is furnished complete with a special light-weight mounting bracket and a drive cable that installs in the Macintosh Portable the same as the one supplied by Apple Computer. The internal model is known as the Pi-40p and retails for $895.00 with a full year warranty. The new lightweight drive requires less than one watt of power when in the "sleep mode." The external version of the same drive is known as the MP-40p and it retails for $995.00. The MP-40p comes complete with a special power cable that allows it to operate from the battery of the Portable.

The system is housed in an injection moulded cabinet about the size of an external floppy drive and they weigh less than 3 pounds. The MP-40p "sleeps" at the same Lime as the Portable's internal drive, conserving battery power, allowing it to operate several hours from a fully charged battery. The MP-40p can be attached to any Macintosh with a SCSI port and can therefore be easily shared between several CPU's. The MicroPak 155 MB SCSI Streaming Tape Backup System, that will be available in November, can be used in the field with the Macintosh Portable since it gets its power from the battery of the Macintosh portable This small powerful tape backup system can be shared with any Macintosh with a SCSI port and is rated at 5 MB per minute. The MPT-155 retails for $995.00 and comes complete with two blank tapes and an easy to use utility that allows for file-by-file and mirror image backups and restores. MicroNet Technology, 20 Mason, 1rvine, CA 92718. Tel: (714) 837-6033

**The Designer Type Library**

The Designer Type Library is the essential resource for everyone working with Adobe/Linotype Postscript typefaces. Guaranteed to end the frustration of selecting type.

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• Handsome three-ring binder with dividers to allow for

• easy adding and updating of pages.

Single copies are $49.95 (retail value $75.00).

Beyond Words Publishing, Inc. Pumpkin Ridge Road, Route3, Box492B Hillsboro, OR 97123 800-284-9673

**DataMerge**

DataMerge is a utility to help spreadsheet and graphics application users manipulate tabular data on the Macintosh. Users include owners of spreadsheet programs like Excel and Wingz and graphics applications like Cricket Graph, Kaleidagraph and MacSpin. Users employ DataMerge to combine databases, to move databases from one application to another, to move databases from one platform to another, to quickly inspect the contents of large files without having to load the files in computer memory, and to pare unneeded columns and rows from large databases. DataMerge's output is frequently directed to spreadsheet and graphics applications where analysis is performed or presentations prepared. DataMerge is often used in research and laboratory environments where it helps manage and import data that typically reside on organization mainframes. DataMerge makes possible the selection and merging of up to 256 data columns from up to 9 input files,constructing output files of up to 99 columns. The input files can be created by different applications and do not need to be in the same format. Fixed field formats are supported. File size is limited only by available disk space. Output files can be constructed with a selection of data column delimiters or can be of fixed field format. In addition, DataMerge has features to help smooth the process of importing files from other computers to the Macintosh. The suggested retail price is $99.00 (Special or Discount Price: $69.00).

Seawell MicroSystems, PO Box 22030, Seattle, WA 98122 (206) 322-3123 or (800) 347-7008.

**Dashes DA**

Dashes DA is a hyphenation DA which opens up multi-lingual word processing and publishing. The Dashes DA is more than 99% accurate in fifteen languages. The development of the product may obviate many people's need for expensive customised word processing or publishing software. Until the development of Dashes DA, hyphenation has been widely available only for Apple fonts in only one or two languages at a time. Dashes is compatible with most major word processors and DTP programs. Circle Noetic Services has equipped Dashes with a compounding algorithm for the Germanic languages, which makes possible the high degree of accuracy in these languages. The Dashes DA sells for $95 per language.

Circle Noetic Services, 5 Pine Knoll Drive, Mont Vernon, NH 03057, (603) 672-6151

**Pronto™ Version 2.0**

Pronto™ Version 2.0 is an upgrade to the SCSI Accclerator Card for Macintosh II computers, provides significantly faster performance for Syquest, read/write optical, and CD-ROM drives. The new version also features an improved user interface with online help, and a completely rewritten user's guide. A user-installable Pronto 2.0 upgrade kit is available to registered users for $35.00. Factory upgrades are available for $95.. "We wanted our original customers - those who helped make Pronto a successful product - to be able to enjoy the benefits of Pronto 2.0 as inexpensively as possible. It's our way of saying thanks," said George Spicer Bredehoft, Golden Triangle's Director of Products. Pronto 2.0 accelerates SCSI mass storage devices by combining a 5 Mbyte/ second (maximum) SCSI bus with disk caching technology. Applications for Pronto include file servers, publishing systems, imaging and optical storage systems.

Golden Triangle Computers. Inc., 4849 Ronson Court, Suite 217, San Diego, CA 92111 (619) 279-2100

# Word 4.0

## Twenty-five tips for Word 4.0 users provided by Geoff Wood.

**1. Dropped Capitals**
Dropped capitals can be created as follows. Type the capital letter in a size about twice that of the font in the main paragraph. Drag the left indent marker about 1/4 inch to the left of the main margin and format the paragraph Side-by-side (from the Command command).

Type the main paragraph as a separate paragraph with Side-by-side format and use the tab key to indent the first two lines to a left-align tab at a position which leaves room for the dropped capital. Use Page Preview to check the alignment and adjust if necessary. The dropped capital can cover three or more lines if you wish. You could use the Position format to achieve a similar effect but the Side-by-Side format offers more precise control over the position of the dropped capital.

**2. Kerning**
Word 4 does not have a Kerning command but you can use Condensed Spacing in the Character dialogue box to reduce the gap between characters such as AW. You can use the Glossary feature to store characters already 'kerned'. To adjust characters in an existing document, 'kern' the first pair in a document, copy them to the Clipboard, then search for other occurrences with the Change command and enter ^c in the Change To box. This will replace the normal pair with the contents of the Clipboard.

**3. Line Spacing**
The 'double' line spacing icon on the Ruler does not double the line spacing with every font size; it simply increases the space between the descenders to 24 points. (If the font size is 24 or more, the line spacing does not change.) Similarly, the 'one-and-a-half' line spacing icon increases the space between the descenders to 18 points. To get true double or one-and-a-half line spacing, enter an appropriate number in the Line box in the Paragraph dialogue box. If you enter a line spacing that is less than the font size, Word 4 will change the spacing to avoid cutting off the ascenders and descenders of the characters. However, if you specify a negative line spacing, it uses the absolute value of the negative amount and may therefore cut the ascenders or descenders off some characters. This feature can be useful for special effects.

**4. Two Spaces at the End of a Sentence**
Many people like to put two spaces after the full stop at the end of a sentence (except at the end of a paragraph) but if you accidentally insert three spaces, it is not always easy to see the error. Use the Change command to search for each occurrence of a full stop plus three spaces and change it to a full stop and two spaces. Repeat the operation in case there are any full stops followed by more than three spaces.

With some fonts it is difficult to see whether you have use only one space instead of two after the full stop. But if you search for a full stop plus one space, it also finds those that are followed correctly by two spaces. It is tedious to check every occurrence just to find the odd few with only one space. Here's how to deal with the problem. Use the Change command to Change All occurrences of a full stop plus two spaces into a full stop plus two $ signs. Then use the Change command to Change All occurrences of a full stop plus only one space into a full stop plus two spaces. Finally, Change All occurrences of the full stop plus two $ signs into a full stop plus two spaces. If some sentences end in a question mark or exclamation mark instead of a full stop, you should search separately to make sure that these punctuation marks are followed by two spaces rather than one or more than two. Alternatively, use Sensible Grammar to rectify your punctuation errors.

**5. Find Again and Change Again**
If you have used the Find or Change command and reverted to the document, Option-Command-A finds the same word or phrase without re-opening the Find or Change dialogue box. This is useful when you want to perform some changes that cannot be done with a simple Change All operation. Don't confuse Option-Command-A with Command-A which repeats the last command. If the last command was a Find or Change command, Command-A will repeat it, but if you have used other commands since Find or Change, use Option-Command-A to repeat the last Find operation. To repeat a Change operation, use Option-Command-A followed by Command-A, provided that you have not used any other command since the last Change operation.

Option-Command-A also repeats a format search (Option-Command-R). This is useful when you have changed the format of some characters after using Option-Command-R and there is no text visible on the screen in the old format.

**6. Negative Headers**
Normally, if a Header contains more lines than will fit in the top margin specified in the Page Setup dialogue box, the top margin is adjusted to accommodate the Header with a blank line between it and the first line of the page text. If you enter a negative number in the From Top box in the Section dialogue box, the Header will overlap the text of the page.

This is very useful for special effects such as a logo or letterhead in the Header or a graphic as a background to each page.

**7. Calculations**
Use the Hidden text format to prevent the arithmetic operators and other characters from printing. For example, you can create an invoice in which the quantity is multiplied by the price with the * operator in Hidden text. You can calculate the VAT by entering *15% and selecting this with the pre-VAT price before using the Calculate command.

The number of decimal places in the answer is determined by the number of decimal places displayed in one of the figures used for the calculation. If there is a comma in one of the base figures, commas will appear in the answer to indicate thousands and millions (even if the comma in the base figure is in the wrong place). Calculations that would result in an answer with more than 14 significant figures are not carried out but a warning box appears saying Math overflow.

**8. Option Drag**
If you select several rows of a table and choose Sort from the Document menu, the rows will be sorted on the information in the first column of the table. If you want to sort the rows on another column, hold down the Option key, select the rows in that column, then choose Sort. To sort in reverse order, hold down the Shift key down before selecting the Document menu, then choose Sort. The Option drag technique also works on text. You can use this to achieve special effects such as a vertical band of bold or italic characters or a different font. The selected band has straight vertical edges which may cut through some characters on some lines. If more than half of a character is within the band, it is treated as selected.

**9. Fast Save**
After the first Save, the Fast Save option speeds up the save operation by adding a list of the changes you make to a document. So if you cut a paragraph and replace it with a shorter paragraph, the file on the disc grows in size. For the final save, use the Save As command, switch off the Fast Save option and click on Yes when if asks if you want to replace the existing document. If your hard disc is nearly full, load the large Word 4 documents and use Save As with the Fast Save option switched off. You may find that they have reduced in size by 25 per cent or more.

**10. Defining Styles**
When you define a new Style and click on the Apply or OK button in the Define Styles dialogue box, the paragraph containing the insertion point takes up the formatting of the newly defined Style. To prevent this happening, click the Define button then the Cancel button. This does not cancel your new Style definition, it simply prevents it being applied to the current paragraph. When you define a new Style, Word 4 assumes that you want to base it on an existing style - usually Normal. If you change the definition of a Style, Word 4 changes the definitions of any Styles based on it. To prevent this, delete the Style name from the Based On box when you define a Style.

**11. Styles for Outlining**
Word 4 offers a set of Styles (called heading 1 to heading 9) which are automatically used by the Outlining command to display headings, subheadings, sub-sub headings and so on. If you don't like the formatting of these Styles you can change them to suit yourself and save your own versions as default Styles. If you use these Styles for headings, you can automatically number the headings and sub-headings with a hierarchy of numbers, e.g., I, II, III for level 1; A, B, C for level 2; a, b, c for level 3 and so on. The first letters or numbers of the sequence you want should be typed in the Format box of the Renumber dialogue box.

**12. Next Style**
When you define a Style, Word 4 assumes that you want to continue with the same Style when you press Return at the end of the paragraph. However, if you enter a different Style name in the Next Style box, it changes to that Style when you press Return. (The default heading Styles revert to Normal when you press Return at the end of the heading.) However, you can override the Next Style instruction by holding down the Command key before pressing Return. Word 4 ignores the Next Style and continues with the same Style.

**13. Keep With Next**
To prevent a heading from appearing on its own at the bottom of a page, define a Style called, say, Heading and select the Keep With Next option in the Paragraph dialogue box. Also, set the Next Style box to Normal or to the Style you want to use for the main text.

However, if you leave a blank line between the heading and the next paragraph, the heading and this blank line may appear at the bottom of a page. To prevent this happening, modify Normal Style or your main text Style to include 12 points of space above the first line. (Use the Space Before option in the Paragraph dialogue box or click the second paragraph spacing icon in the Ruler). Then don't press Return twice after typing the heading. Just press it once and type the main text.

**14.Formats in the Paragraph Marker**
The paragraph mark ¶ which appears at the end of a paragraph when you select Show ¶ holds the formatting characteristics of that paragraph. If you select and copy this mark then paste it to replace the paragraph mark at the end of another paragraph with different formatting, that paragraph will take on the formatting carried in the incoming paragraph mark. So if you have a complex table with tabs and vertical lines, you can use this technique to create a similar table elsewhere in the same document or in another file. Of course, you can use the Style command to change the formatting of a paragraph but the paragraph mark also carries amendments which you may have made since you defined the Style.

**15. Using the Keyboard with Dialogue Boxes**
You can use keyboard commands instead of the mouse for most options in a dialogue box. To move through text boxes, just press the Tab key. To move to the next option in a group, use Command-Tab. To move to the previous option in that group, use Shift-Command-Tab. To move to the next or previous group of options, use the right or left arrow key. Your current position in the ☛

dialogue box is shown by a dotted line flashing under an option. To select that option, use Command-Spacebar or zero on the keypad. Alternatively, you can move to and select an item by holding down the Command key and pressing the first letter of the name of the option. If you change some options in a group in a dialogue box and want to revert to the original setting of that group, just click on the name of the group.

**16. Mixing the Number of Columns on a Page**

When you change the number of columns in the Section dialogue box, Word assumes that you want to start a new page (the New Page option in the Start group is the default selection). To mix the number of columns on a page, select No Break from the Start group.

**17. Shift Open**

If you hold down the Shift key and choose Open Any File from the File menu, Word 4 allows you to open files that were created by other applications such as Excel. This may help you to study the structure of these files.

**18. Command Prompts**

When you use Shift-Command-E instead of the menu to call up a Font, the word Font appears in the page number box in the bottom left hand corner of the screen, awaiting the font name or the first character(s) of the name. Thereafter, if you want to use the command again, you can click in the page number box to recall the command. Word 4 'remembers' the last command used. The same holds true of Shift-Command-S for Style, Command-Backspace (Delete)for the Glossary and Shift-Command-Q for finding or entering the ASCII Character Code.

**19. Footnotes**

If you change a footnote reference number or mark by selecting and changing it, the number or mark you type will not appear in the footnote window and the footnote text will disappear. To edit a footnote number or mark, select it, use the Footnote command from the Document menu (or Command-E), type a new footnote reference number or mark in the dialogue box and press Return. If you replace an auto-numbered reference with another number, the new number will not be part of the sequence of auto-numbered references, so you can have two apparently identical numbers on the same page or in the same document.

**20. Even/Odd Headers**

The Document menu offers Even/Odd Headers for right and left pages. If you make the Even Header different from the Odd Header (e.g., page number in the opposite corner) then de-select Even/Odd Headers, the Odd Header becomes the Header for all pages, but the Even Header is not lost. If you re-select Facing Pages, the Even Header re-appears as you set it. The same applies to Even/Odd Footers.

**21. Merging Options**

Text inserted into a document with the Print Merge command usually appears in the Normal character style, even if the incoming text is formatted in, say, bold or italic in its original document. But if you format the first letter of the field name in, say, bold or italic, or a different font or size, all the incoming text in that field will appear in the specified format. You can format the whole field name if you wish, or part of it, but only the first letter has any effect.

If you substitute an end-of-paragraph mark (¶) for an end-of-field marker (»), it will have the same effect as the end-of-field marker but it will not start a new paragraph in the merged document. This phenomenon can be useful where you want the visual effect of an end-of-paragraph in the main document but not in the merged document.

The Word 4 manual implies that you can use either commas or tab marks as separators between fields but not both in the same record. This does not seem to be true; you can mix them freely in the same record or in a file. The manual also advises you not to use the characters « and » in a record. This too is wrong. You can use them if you wish.

When you use the Ask instruction, you don't know which record you are working with because the details are not displayed. You can overcome this problem by including one or more of the fields in the dialogue box by means of an appropriate message, e.g., «ASK Due=? Enter amount due for «Company»» (where Company is one of the named fields but Due is not a named field but is displayed as «Due» where you want the entered information to appear in the document).

**22. Searching**

The Find and Change commands work only in the active window; so it you want to search a Header, Footer or Footnote window, you must make it the active window.

**23. Creating Boxes**

To create a box, choose Outline or Shadow from the Format menu, then choose Insert Graphics from the Document menu. A 1" square box will appear where the insertion point is located. Click once inside the box so that three black handles appear. Drag one of the handles to change the size of the box. As you do so, a dimension is displayed in the bottom left hand corner of the screen. A box created this way is a single character, so you can't type other characters inside it. If you want characters inside a box, you can use the .\X (Box) function used in creating Formulae. Alternatively, you could use the Table format with borders. If you need boxes often, create a Glossary of standard size boxes so that you can insert the one you want without having to create it from scratch every time.

**24. Moving Tabbs**

If you hold down the Shift key before dragging a tab marker, any tabs to the right of that tab marker will move the same distance, maintaining their relative positions. This applies to vertical line markers as well as tab markers.

**25. Installing Fonts and Desk Accessories**

If there are some fonts and desk accessories that you want to use with Word 4 but not with other programs, you can install these in the program file. Open the Font/DA Mover then hold down the Option key while you click on Open. This will present a list of all application files on the disc. Proceed with the installation in the same manner as installing fonts or DA's in a System file.

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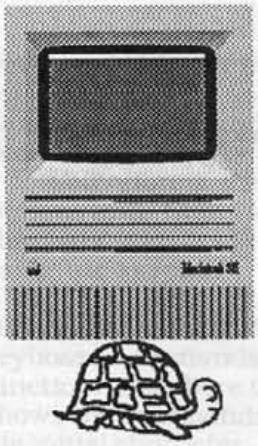

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|---|---|
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| MCP (Math Coprocessor) | MC68881 or MC68882 |
| Clock Speed | 16, 20 or 25 MHz |
| MMU Option (Memory Management Unit) | MC68851 (Optional extra) |
| Bus Width | 32 bits |
| Memory Speed | 60-150ns, user definable |
| Ram Capacity - Standard SIMM's | Up to 8 megabytes |

| | |
|---|---|
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# Word 4 Command List

## Word 4 Command List Updated by Geoff Wood

WORD 4 KEYBOARD COMMANDS

| Char | With command key only | With command & shift keys | With command & option keys |
|---|---|---|---|
| A | Repeat last command | | Repeat last Find command |
| B | Page view | Bold on/off | Move to next paragraph |
| C | Copy | Centre text | Copy text (without paste) |
| D | Character | Outline on/off | Copy text as graphic |
| E | Footnote | Font change | |
| F | Find | First line indent | Delete next character |
| G | Go to page No.... | | Delete next word |
| H | Change | Small capitals on/off | Extend selection to ... |
| I | Print preview | Italic on/off | |
| J | Repaginate now | Justify | Move to previous word |
| K | Glossary | All capitals on/off | Move to previous character |
| L | Spelling | Flush left | Move to next character |
| M | Paragraph | Unnest paragraph | Select whole document |
| N | New document | Nest paragraph | |
| O | Open | Space above paragraph | Move to previous line |
| P | Print | Normal paragraph | Move one screen up |
| Q | Quit | Symbol font | Paste special character |
| R | Show/hide ruler | Flush right | Find formats |
| S | Save | Style change | Split window / remove split |
| T | Define styles | Hanging indent | Outline command prefix |
| U | Outlining | Underline on/off | |
| V | Paste | Hidden text on/off | Copy formats |
| W | Close window | Shadow text on/off | Move to next window |
| X | Cut | Hidden text on/off | Move text (without paste) |
| Y | Show/hide ¶ | Double line spacing | Move to previous paragraph |
| Z | Undo | Plain text | Move to previous location |
| Space-bar | | Sticky space | Plain for style — Insert ¶ above row in table |
| Comma | | Use Quickswitch | Smaller font size — Move to next line |
| Full stop | | Cancel | Larger font size — Move one screen down |
| Hyphen | | Optional Hyphen | Subscript — Delete command from menu |
| = | Calculate | Superscript | Add command to menu |
| ? | Help | Strikethrough on/off | Scroll up one line |
| ~ | Sticky Hyphen | | |
| Tab | Activate menus | | |
| \ | | Dotted underline on/off | Insert formula |
| [ | | Double underline on/off | Scroll down one line |
| ] | | Word underline on/off | Zoom window |
| ; | | | Move to next word |
| Delete | Insert glossary entry | | Delete previous word |
| Return | | | Insert ¶ after insertion point |
| ' | | | Intensify next movement |
| Command-Shift-Option-S | | | Open/close footnote window |

# Keyboard Commands

## Word 4.0 Keyboard Commands Updated by Geoff Wood

Devotees of Word 4 will know that you rarely need to use the mouse. Almost all commands can be issued from the keyboard by using a combination of the Command, Option and Shift keys with a character from the keyboard or by using the keypad.

The Quick Reference Guide that comes with Word 4 shows the keyboard commands grouped by function. But there is no list that shows the commands grouped by the initial character. I created my own list which is printed here for convenience for other users.

Some of the commands are difficult to remember, but they are based on a logical pattern.

The more commonly used menu commands such as New, Open, Save, Print and Copy follow the Macintosh convention of holding down the Command key and pressing the initial letter of the command. Obviously, not all the commands can be alphamnemonic. The Find command is Command-F but the Footnote command is Command-E. The Ruler command is Command-R but the Repaginate Now command is Command-J.

Holding down both the Shift key and the Command key before you press a character key usually performs a formatting operation. Thus Command-Shift-B switches bold face on or off, U switches underlining on or off and I switches italic on or off. The keys for C, J, L and R, in conjunction with Command-Shift, cause selected or subsequent text to be centred, justified, left aligned or right aligned. You can also use Command-Shift-N and M to 'nest' or 'un-nest' the left margin to the next or previous tab position. Command-Shift-F and T offer indented first line and hanging paragraphs respectively.

Command-Shift-> and < change selected or subsequent text to the next font size up or down. Command-Shift-E allows you to change fonts by typing the font name (or the first letter or two of the font name) and pressing Return. Command-Shift-S allows you to change styles by typing the style name (or the first few letters) and pressing Return.

You don't need the mouse to select text. Just locate the insertion point (using the arrow keys or keypad keys) at the start or end of the text you wish to select, then hold down the shift key and use the arrow keys or keypad keys to select the text.

Some commands require the use of the Option key with the Command key. These include C and M to copy or move text without the need to paste, Z to move the insertion point to the previous location and W to activate the next window. Some commands were designed for the original keyboard (with no keypad) but they still work on the full keyboard. These include J, K, L, and semi-colon which move the insertion point forwards or backwards one character or word at a time and O, P, period and comma which move the insertion point up or down a line or page at a time. The advantage for touch typists is that you do not have to move your hands to the keypad to move the insertion point.

You can use the Commands command to modify any of these keyboard commands to suit your own requirements. For some unknown reason, Microsoft gave two keyboard commands for hidden text (Command-Shift-V and X) so you can use one of these for, say, Side-by-side format or Paragraph Border or any other command that you use frequently. As the table shows, there are some unused combinations such as Command-Shift-A and G and Command-Option-E, I, N & U. You could use these for your favourite commands.

As far as I know, only one command requires the Option, Shift and Command keys to be held down. This is Option-Command-Shift-S which opens or closes the footnote window.

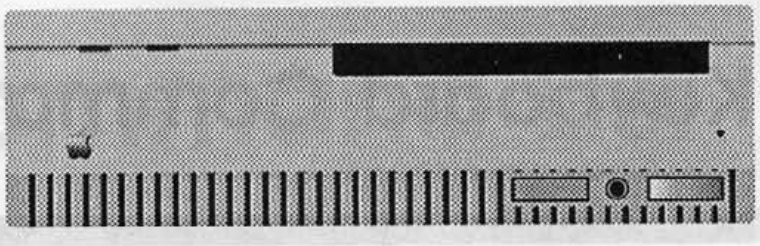
My favourite command is Command-Tab (or keypad period) which selects the menu bar. You can then drop a menu down either by pressing the initial letter (to select Format or Font instead of File, hold down the shift key and press F twice or three times) or by using the right and left arrow keys or by pressing a number (not on the keypad) from 0 to 7 (or 8 if you have a Work menu). Menu commands can then be selected either by using the up and down arrows or by pressing the initial letter of the command. So Command-Tab F S S Return gives Save As.

The keyboard can be used instead of the mouse in Dialog Boxes. So if you use Command-M to bring up the Paragraph dialog box, you can use Command-Tab (or keypad period) to 'underline' the options in turn, then use Command-Spacebar (or keypad zero) to 'click' the option. Some options can be selected by holding down the Command key and pressing the initial letter of the option. For example, Command-C usually operates the Cancel box. If not, you can use Command-period to cancel a command.

Some operations cannot be performed from the keyboard. These include choosing some of the icons from the Print Preview selection, performing an Option select for sorting or calculation and, my pet hate, operating the "Yes" button on the dialog box which asks if you want to replace the existing file with the 'Save As' command. However, this is an Apple command so we can't blame Microsoft.

Despite these few shortcomings in the keyboard commands, Word 4 is still my favourite word processing program.

# Multimedia



## Two companies taking on this new challenge

What is multimedia? It is a new buzzword which refers to the up-and-coming interest in combining the creative possibilities of television and video with the power of the computer.

As one might expect, the Macintosh is admirable suited to this new environment, with its superb graphics capabilities.

A number of new products are coming to market, and a number of new companies are being created to develop this interesting combination of technologies. The possibilities for suitable applications are seemingly endless — including business presentations, education, guides to museums and art galleries.

### The Mac Consultancy Company Ltd

One company which has been quick to see the potential of this new market is The Mac Consultancy Company Ltd. They are importing the Voyager Company's range of software for use with interactive videos and CD audio disks, and developing their own expertise in the UK. The Voyager Company was the first company that we were aware of in this field — they were represented at the MacWorld Expo in SanFrancisco in January 1988, and gave an excellent presentation on the topic at that time.

We were fortunate that The Mac Consultancy Company Ltd loaned us three of the Voyager Company's packages for review — the CD Companion to Beethoven's Ninth Symphony, the Audio Stack and the Video Stack. This material will form the basis of an article in a future issue.

If you want to enquire about multimedia products available from The Mac Consultancy Company Ltd, they can be contacted at 134 Highland Park Avenue, London, W11 4UE.

### MultiMedia Corporation

A new multimedia product development and publishing company has been founded in the UK following the successful management buy-out of the BBC's Interactive Television Unit, which was formed in 1987 to develop the potential of interactive multimedia progamming. This is the MultiMedia Corporation. The work of the ITU included the famous Domesday project, but since then the ITU has diversified beyond the requirements of broadcast programme-making into the development of multimedia products for general business use, for the home and for education.

The MultiMedia Corporation has now been established as an independent organisation retaining close links with the BBC as an associated company. The first products to be offered in the next few months include:

- •MediaMaker — a desktop video editing system
- •Eastenders Gallery — a 'flight simulator' for television training and media studies
- •LaserCast — an electronic casting directory
- •ECOCD — a CD ROM ecology disc which simulates a real nature reserve
- •City Disc — an exploration of the City of London as a financial and cultural centre

If you want to contact the MultiMedia Corporation, they can be contacted at 109 Regents Park Road, London, NW1.

# TED2 Conference — CA

The TED2 Conference took place in Monterey (California) recently, and was hailed as a great success.

TED2 is the acronym for Technology, Entertainment and Design. Nobody seems to have reported on TED1 (if that happened?), but all the attendees seem to have agreed that TED2 helped to create a better understanding of the computing technology for the creative community of artists, writers and musicians.

Many of the eminent speakers used a combination of computing and interactive video to give their presentations fuller impact.

Photojournalsit Rick Smolan (creator of the "Day in the Life" series of books) supervised a photographic record of the conference. The digital images taken by the photographers were transferred to the Macintosh, to create an impressive presentation — complete with digital soundtrack, of course.

# Trouble brewing for Jasmine?

Jasmine Technologies Inc. look as though they might be in trouble, if reports in the American press are to be believed.

Reports state that two of their top executives have recently resigned, and that there are many complaints from customers about poor support and service. Apparently, there have also been various litigation problems which have taken their toll.

We see little of these problems, as we are somewhat remote from their home market — but ultimately such troubles are reflected in the services provided to the customers worldwide.

Our main knowledge of Jasmine Technologies Inc. is the range of disk drives they produce, including some quite revolutionary designs. They always gave the impression that they were ahead of the field for new developments in the area of Macintosh peripherals, but maybe that was a false impression?

# Claris CAD 2.0 for the Mac

Claris Corporation have announced Claris CAD 2.0, a new version of its design and drafting software for the Mac. This offers more than 100 new features, support of industry standard drawing and dimensioning standards and an improved user interface.

The program provides two-dimensional drawing accuracy. New features include the Graphic Guide, which provides an "intelligent capability that thinks a step ahead of the user"; new mechanical design and drafting functions, including geometric dimensioning and tolerance symbols; new architectural, engineering and construction design functionality; general tools and utilities such as object attribute export capabilities, scaling and labeling tools.

Due to ship in 2nd quarter 1990, with a price tag of £675, there will be upgrade paths for owners of CAD 1.0 and MacDraw II.

# Adobe present Photoshop

Adobe Systems U.K. Ltd have announced the release of their latest offering, Photoshop, described as "a sophisticated, image-enhancing software program designed specifically for artists and designers using a Macintosh desktop publishing system".

The program offers a number of tools for editing and enhancing images, allowing you to create new images or to manipulate existing artwork. Features include painting, selection, adjustment, filtering, transformation, text, colour separation tools and the support of various file formats.

Adobe claim that the program can edit images up to 300 Mbytes in size.

There was no indication of the full price, but registered users of Adobe Illustrator are offered a reduction of £154 if they purchase Photoshop from their dealers before 1st May 1990.

## Mac 1990 Games

**Alter Ego £19.90 Activision** (To clear)

"...a clear winner..." - Home Software Newsletter

"...the first simulation I've seen that simulates life!" - Rawson Stovall, The Vid Kid

"...is as attentive and sympathetic as an analyst, but you don't need an appointment..." - USA Today

Have you ever wanted to live a different life? To construct a new life or tinker with other personalities? Now you can live any life, try any personality from birth to old age. What if you.....?

Designed by Dr. Peter Favaro, available in either male or female versions. (To clear)

**Shanghai £19.90 Activision** (To clear)

Was $39.95 - see MacUser (USA) review pp110 Nov'86. Designed by Brodie Lockard, *Shanghai* is a captivating strategy challenge devised from the ancient Chinese game of Mah Jongg.

The 3000-year-old obsession of sailors, warriors, scoundrels, courtiers and kings was brought to America in the 1920's as Mah Jongg. And now, Activision brings the best of this addicting phenomenon to you in a brand new form - as *Shanghai*.

**Winter Games £19.90 Epyx** (To clear)

The games open with official ceremony, complete with national anthems, and accelerate rapidly from there. Down the icy tube of the bobsled run, for example. Or off the lip of the nordic ski jump. You'll fly through the hot dog acrials. Choreograph a complete figure skating routine. Or test your endurance in the biathlon. It's the challenge of seven true-to-life winter events. And with action this chilling, its no wonder that *Winter Games* continues to be a smash hit.

**Hacker £19.90 Activision** (To clear)

An all-time smash hit, Hacker was designed by Steve Cartwright.

It's every hacker's dream. Tapping into a vast corporate computer system that reveals a world of secrets and international intrigue.

"The most fabulous game I've ever run across." - Dave Plotkin, Antic Magazine

**Hacker II: The Doomsday Papers £19.90 Activision** (To clear)

Steve Cartwright's blockbuster sequel to the megahit of 1985. The experience continues! Only you can crack Russian security and save the United States. Steve does it again, creating the hacker's ultimate fantasy...and the ultimate challenge.

**Borrowed Time £19.90 Activision** Designed by Interplay Productions (To clear)

Someone's holding target practice...and you're the target!

The word's out that someone wants to put you out of commission. Permanently. You've got less than a day to find your would-be assassin. Talk to your sources. Search for clues. But remember that the longer you look, the more of a target you become. Somebody may get away with murder. Yours.

"One of the best from Activision...thoroughly enjoyable." - Terry Clayton, The Electronic Gamer

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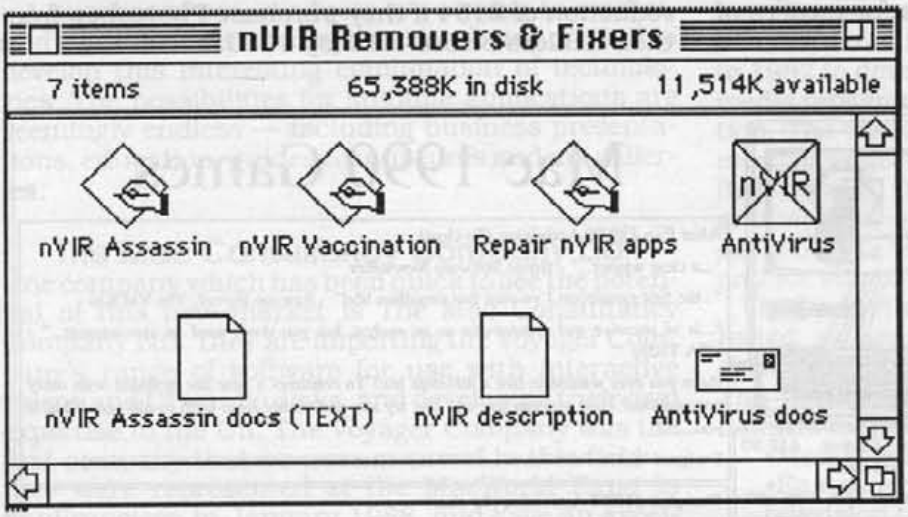
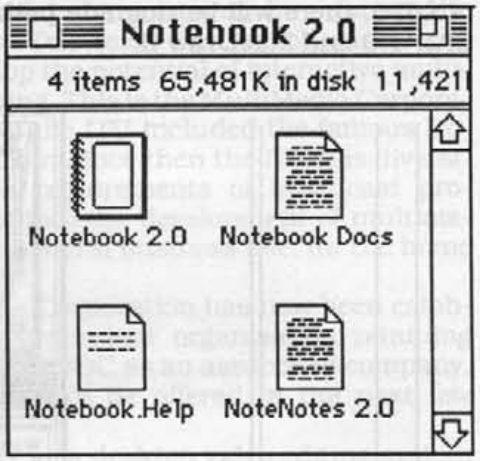
# AppleXtras Mac 2

The second AppleXtras Mac disk contains the programs shown here and many others. It will be placed in the library from June 1st.



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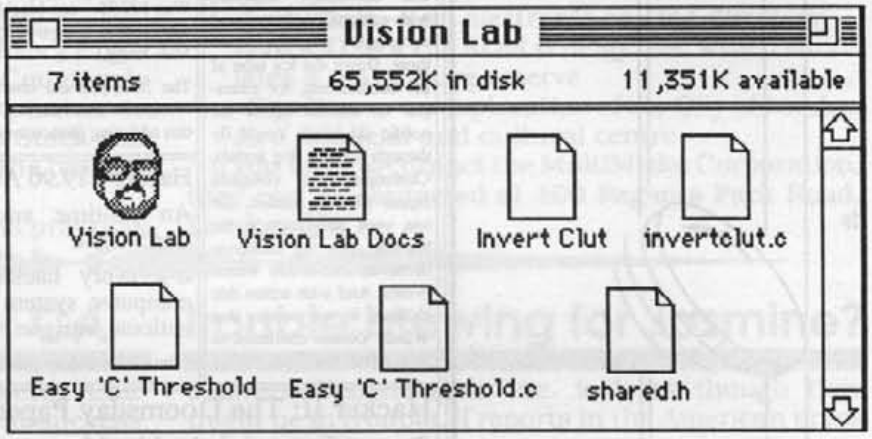

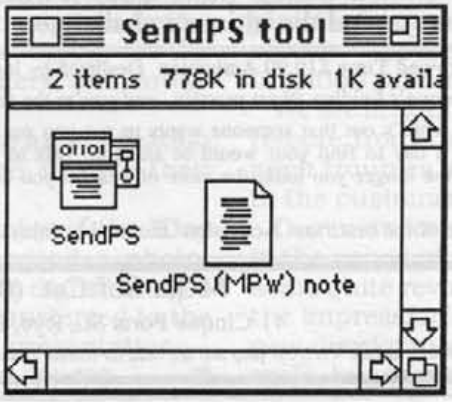


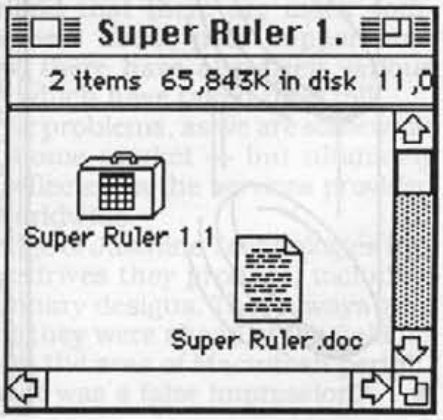

# Mac Library

**"Smart Quotes 2.7"** by Philip Borenstein is on Mac Library Disk 360 DAs/INITs 6. It is published by Oak Square Publications, Box 1238, Allston, MA 01234

**About Smart Quotes**
Smart Quotes is a Desk Accessory that watches what you type and makes your application think you typed something else. Smart Quotes
◊ changes straight quotes into curly quotes
◊ changes "fl" and "fi" pairs into ligatures
◊ changes double hypens into em-dashes
◊ catches double capitals at the beginning of words

**Using Smart Quotes**
Install Smart Quotes into your System file with Apple's Font/DA Mover. Now start up MacWrite (or your favorite word processor) and select Smart Quotes 2.5 from the Apple Menu. The Smart Quotes menu will appear in the menu bar:

" "

Type a double quote ("). Smart Quotes changes it into an open quote (“). Now type in some text, and then type another double quote. Smart Quotes automatically changes it to a close quote (”).

Smart Quotes looks at what you typed right before the quote. If it's a space, a tab, or a return, Smart Quotes will type an open quote, otherwise it will type a close quote.

If you really want to type in a straight quote, choose Convert Quotes from the Smart Quotes menu. The menu changes to show you that Smart Quotes isn't converting quotes for you:

" "

Now when you hit the quote key, Smart Quotes will not convert it to either an open or a close quote.

**Converting Ligatures**
Most of the LaserWriter fonts have ligatures for the "fl" and "fi" pairs. To get these, you usually have to type Option-Shift-5 and Option-Shift-6. Smart Quotes will convert these pairs for you automatically when you have the Convert Ligatures option checked in the Smart Quotes menu. When this option is checked, the Smart Quotes menu looks like this:

"fi"

Not all fonts have ligatures. If you have the Convert Ligatures option checked and you are using a font without them, the "fl" and "fi" pairs will come out looking like boxes.

**Converting Dashes**
Often, you'll use two hyphens (--) to mean a long dash. If you choose Convert Dashes from the Smart Quotes menu, Smart Quotes will change them into a single em-dash (—). The menu bar does not change if you have selected Convert Dashes.

**Watching Capitals**
When you're typing quickly and youre fingers slip, sometimes you end up typing a word with two capital letters in a row: like THis.

If you have the Watch Capitals option checked, Smart Quotes will watch for this kind of typo. It leaves the first capital alone, and it changes the second one to lower case.

**Quitting Smart Quotes**
If you don't want Smart Quotes to convert characters for you anymore, choose Quit Smart Quotes from the Smart Quotes menu. This tells Smart Quotes to go away, and the Smart Quotes menu will disappear. If you want to use Smart Quotes again, just choose it from the Apple menu.

**Compatibility**
Smart Quotes works with most Macintosh applications and desk accessories. It has been tested with MacWrite, MS Word 3.x, FileMaker Plus, PageMaker, LightspeedC, Thunder, and MacDraw. It will not work with MacPaint. If you find any further incompatibilities, please let me know.

**How It Works**
Smart Quotes looks at the characters you type and checks to see if you pressed a single or double quote, an "l" or an "i" after an "f", or two dashes in a row. If you did, it fools the Macintosh so your application thinks you typed another character.

Some applications don't take kindly to this kind of interference (MacPaint, for instance). Since Smart Quotes doesn't make any permanent changes to your system, you can always reboot if you think it's causing trouble.

Smart Quotes remembers the last 128 characters you typed. This means that if you backspace over a ligature, instead of erasing the whole ligature, Smart Quotes will leave you with the "f." Once you click the mouse, though, Smart Quotes will forget all the characters.
Smart Quotes was written in THINK's LightspeedC.

**Postscript**
I wrote this DA for two reasons: 1) I needed it 2) Straight quotes are ugly. Whether you pay for this DA or not isn't as important as your using it.

**About the Agreement**
Smart Quotes is copyrighted. It is not a public domain program. If you send $10 to Oak Square Publications you will become a registered user and will receive the latest version of Smart Quotes DA as well as an INIT version of Smart Quotes that installs itself every time you start up your Macintosh.
You may alter the resources for your personal use, but any copies you distribute must contain all of the original resources.
I have taken reasonable care in writing Smart Quotes, but I do not make any guarantee as to its suitability for any task.

# User Groups

## London Region

ESSEX GROUP

CONTACT - Pat Bermingham Tel : [illegible]
VENUE - The Y.M.C.A., Victoria Road, Chelmsford
MEETS - Third Friday of every month

CROYDON APPLE USERS GROUP

CONTACT - Graham Attwood Tel : [illegible]
VENUE - 515, Limpfield Road, Warlingham, Surrey
MEETS - 7.30pm on the third Thursday of every month

HERTS & BEDS GROUP

CONTACT - Norah Arnold Tel : [illegible]
VENUE - The Old School, 1, Branch Road, Park Street Village, St Albans, Herts.
MEETS - 8.00pm on the first Tuesday of each month

KENT GROUP

CONTACT - Richard Daniels Tel : [illegible]
VENUE -
MEETS - Contact Richard

LONDON APPLE II GROUP

CONTACT - Chris Williams Tel : [illegible]
VENUE -
MEETS - Contact Chris

LONDON MACINTOSH GROUP

CONTACT - Maureen de Saxe Tel : [illegible]
VENUE - Room 683, London University Institute of Education, Bedford Way, London, WC1
MEETS - 6.00pm on the second Tuesday of every month.

M25 BUSINESS MAC GROUP

CONTACT - Jim Panks Tel : [illegible]
VENUE - Sir Mark Collett Pavilion, Heaverham Road, Kemsing, Sevenoaks, Kent
MEETS - Phone Jim for details

SOUTH EAST ESSEX MAC GROUP

CONTACT - Mick Foy Tel : [illegible]
VENUE - D.P.S. Acorn House, Little Oaks, Basildon, Essex
MEETS - First Monday of each month

## South

POOLE MACINTOSH USER GROUP

CONTACT - David Huckle Tel : [illegible]
VENUE - Deverill Computers (dealer) Itec House, 34-40 West Street, Poole, Dorset BH15 1LA
MEETS - Four times a year

SOUTHAMPTON

CONTACT - Geoff Parson Tel : [illegible] (work)
Tel : [illegible] (home)
VENUE - Contact Geoff for details

## Wales and West

BRISTOL GROUP ( B.A.U.D )

CONTACT - Malcolm Ingsley Tel : [illegible]
VENUE - Decimal Business Machines Three Queens Lane, Redcliffe
MEETS - 7th day of each month, or the Thursday nearest to it if the 7th falls on a Friday, Saturday or Sunday.

HANTS & BERKS GROUP

CONTACT - Joe Cade Tel : [illegible]
VENUE - Thames Valley Systems (Apple Dealer), 128 High Street, Maidenhead, Berkshire, SL6 1PT Tel 0628-25361
MEETS - 7.00pm on the second Monday of every month

MACTAFF - SOUTH WALES MAC GROUP

CONTACT -
VENUE - Apple Centre South Wales, Longcross Court 47 Newport Road, Cardiff
MEETS - Contact Apple Centre

## Midlands

CAMBRIDGE APPLE USERS GROUP

CONTACT - Ian Archibald Tel : [illegible]
Mac Richard Boyd Tel : [illegible]
VENUE - Impington Village College, New Rd, Impington, Histon.
MEETS - Fortnightly during term time with both Mac and Apple II on deck each night.

EAST MIDLANDS MAC USER GROUP

CONTACT - Nick Helm Tel : [illegible]
VENUE - Wilford Cricket & Rugby Club, Nottingham
MEETS - 8.00pm on the first and third Wednesday of every month.

GATEWAY COMPUTER CLUB

CONTACT - Vern Tel : [illegible]
Robin Boyd Tel : [illegible]
VENUE - Bob Hope Recreation Centre, R.A.F Mildenhall
MEETS - AMS conference room, Mildenhall base. Normally at weekends, check with Robin NOTE : Although the venue is on a service base it is not in a security restricted area so the club is open to interested parties.

LEICESTER GROUP

CONTACT - Bob Bown Tel : [illegible]
VENUE - Shakespeare Pub, Braunstone Lane, Leicester
MEETS - 7.30pm to 10.0pm on the first Wednesday of every month

LIVERPOOL GROUP

CONTACT - Irene Flaxman Tel : [illegible]
VENUE - Check with Irene
MEETS - Second Monday of every month.

MIDAPPLE

CONTACT - Dave Ward Tel : [illegible]
VENUE - I.T.E.C., Tildasley Street, West Bromwich, West Midlands
MEETS - 7.00pm on the second Friday of every month

THE MIDLAND MAC GROUP

CONTACT - Ivan Knezovich Tel : [illegible]
VENUE - Spring Grove House, West Midland Safari Park, Bewdley, Worcestershire.
MEETS - 8.00pm on the first Tuesday of every month

WEST MIDLANDS AMATEUR COMPUTER CLUB

CONTACT - John Tracey Tel : [illegible]
VENUE - Hill Crest School, Simms Lane, Netherton, Near Dudley.
MEETS - 7.00pm on the second and fourth Thursdays of each month.
NOTE - - This is not an Apple user club, it is a general interest club which welcomes users of all machines. There are currently two Apple user members.

## North

BURNLEY APPLE USER GROUP

CONTACT - Rod Turnough Tel : [illegible]
VENUE - Michelin Sports Centre
MEETS - 2nd Wednesday of each month

CREW COMPUTER USER CLUB

CONTACT - Paul Edmonds
[illegible]
VENUE - Christ Church Hall, Crewe
MEETS - Fortnightly, Fridays, 7.30pm to 10.00pm
NOTE: this is a general interest group with Apple users among its members

HARROGATE AREA

CONTACT - Peter Sutton Tel : [illegible]
No active organised group in this area but there are a number of keen Apple users in contact with each other.

THE NORTH EAST APPLE COMPUTER CLUB

CONTACT - Philip Dixon Tel : [illegible]
VENUE - Apple Centre North East, Ponteland Road, Ponteland, Newcastle-on-Tyne
MEETS - First Wednesday of every month

THE NORTH WEST APPLE COMPUTER CLUB

CONTACT - Ken Dawson Tel: [illegible]
VENUE - The Coachman's, on the A49, about 1 mile south of the junction with the M62
MEETS - Second Thursday of every month

THE NORTH WEST APPLE USERS GROUP

CONTACT - Max Parrot
Tel : [illegible]
Tel : [illegible]
VENUE -
MEETS - Ring Max

## Scotland

EDINBURGH GROUP

CONTACT - Ricky Pollock Tel : [illegible]
VENUE -
MEETS - Meetings monthly, check with Ricky

## Postal

APPLE II PROGRAMMERS CLUB

CONTACT - Philip Dixon TEL : [illegible]
VENUE - None established yet
MEETS - No meetings yet, has operated through postal newsletter published quarterly
NOTE : Philip started the club some time ago based on a membership fee of £1.00 to cover the cost of newsletters. Original intention was to concentrate on BASIC and Assembler programming.

## New Groups

DORCHESTER

CONTACT - Ron Hoare Tel : [illegible]
VENUE -
MEETS Meeting on March 1st -contact Ron Hoare

ORPINGTON COMPUTER CLUB

CONTACT - Terry Wheeler Tel : [illegible]
VENUE - G.E.A. Hall, Woodhurst Avenue, Petworth
MEETS - Contact Terry

DONCASTER SOUTH YORKSHIRE

CONTACT - Colin Withington Tel : [illegible]
VENUE -
MEETS - Contact Colin

LEEDS

CONTACT - Bob Miller Tel : 0532-578234 Ext 247
- T Veluppillai Tel : 0532-754349
VENUE -
MEETS - Contact Bob

**If you want to start a group, find out about a group that might be near you, please write or contact John Lee the Local Group Organiser at the PO Box in Liverpool, or phone John Lee on [illegible].**

**If you are a local group organiser and have not been in touch with John Lee, please contact John with details of your group, or any changes there may be to the above details.**

Members' Small Adverts are FREE. Please help us to help you. Send your advertisements to us on a disk, in Mac or Apple II text format. We will return the disk, of course. This saves us time, and avoids errors.

# Members' Small Ads

Members Small Adverts are FREE. We reserve the right to edit and or omit them. They are placed in this Magazine in good faith. Apple2000 holds no responsibility over items advertised, and buyers purchase at their own risk.

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Prodod Technical Reference Manual (Apple) ....**£10**
Apple //e Technical Reference Manual (Apple) **£12**
Appleworks by Charles Rubin (Microsoft) .....**£12**
Apple II Users Guide by Poole, McNiff and Cook **£5**

Please **add £2 p&p** for each item or **£45 for the lot!**

**'Phone John .....** [illegible]

### FOR SALE

White plastic dust covers: Apple ][, Apple][ disk drive, Silentype printer, Centronics printer .....each **£3**

**'Phone Irene .....** [illegible]

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**'Phone Irene .....051 928 4142**

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**'Phone Barrie .....** [illegible]

### FOR SALE

"Practical Computing" Magazines FROM NUMBER ONE (to Vol. 7 issue 3), also other computing magazines. View in London.
**Offers, please.**

**'Phone Ken .....** [illegible]
**.....or** [illegible]

### FOR SALE

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DUNGEON MASTER GS

EXCHANGE: possibility of exchanging the above software

**'Phone Jonathan .....0243 266919**

### FOR SALE

Apple IIgs Memory card with 256k memory.

**'Phone Stuart .....(evenings)** [illegible]

### CONTACTS WANTED

I should like to make contact with any Apple IIgs users resident in the Channel Islands - preferably Guernsey, otherwise Jersey.

**'Phone R.A. Sharman .....** [illegible]

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